



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Marine Adhesive Sealant 5200, White, PN 05203, PN 05206, PN 06500
MANUFACTURER: 3M
DIVISION: Industrial Adhesives and Tapes Division
 Marine & Specialty Vehicle
ADDRESS: 3M Center, St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

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Product Use:
Intended Use: Sealant

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
Urethane Prepolymer	68611-34-7	40 - 70
Talc	14807-96-6	15 - 40
Titanium Dioxide	13463-67-7	5 - 10
Diethylene Glycol Monoethyl Ether Acetate	112-15-2	1 - 5
Fumed Silica	112945-52-5	0.5 - 5
Zinc Oxide	1314-13-2	1 - 5
Alkyl Isocyanate Silane	85702-90-5	0.5 - 1.5
Toluene Diisocyanate	26471-62-5	< 0.5
Heptane	142-82-5	< 0.23
(Gamma-mercaptopropyl)trimethoxysilane	4420-74-0	< 0.16

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste
Odor, Color, Grade: White
General Physical Form: Solid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. May cause allergic respiratory reaction. Contains a chemical or chemicals which can cause cancer. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
Toluene Diisocyanate	26471-62-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Toluene Diisocyanate	26471-62-5	Anticipated human carcinogen	National Toxicology Program Carcinogens

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>Not Applicable</i>
Flash Point	No flash point
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Avoid contact with water.

6.2. Environmental precautions

Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Dispose of collected material as soon as possible.

Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Collect as much of the spilled material as possible. Clean up residue.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid eye contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid skin contact. Avoid breathing of vapors. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Do not ingest. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use heat to aid in the removal of the product. The application of heat may generate levels of Toluene Diisocyanate (TDI) in excess of the TLV.

7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a cool, dry place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.
The following eye protection(s) are recommended: Indirect Vented Goggles

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.
Gloves made from the following material(s) are recommended: Nitrile Rubber

8.2.3 Respiratory Protection

Avoid breathing of vapors. Avoid breathing of dust created by sanding, grinding or machining.
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
FREE ISOCYANATES	Manufacturer determined	TWA	0.005 ppm	
FREE ISOCYANATES	Manufacturer determined	STEL	0.02 ppm	
Heptane	ACGIH	TWA	400 ppm	
Heptane	ACGIH	STEL	500 ppm	
Heptane	OSHA	TWA	2000 mg/m3	
Heptane	ACGIH	TWA	400 ppm	
Heptane	ACGIH	STEL	500 ppm	
Heptane	OSHA	TWA	2000 mg/m3	
Heptane, all isomers	ACGIH	TWA	400 ppm	
Heptane, all isomers	ACGIH	STEL	500 ppm	
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8 mg/m3	

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SILICA, AMORPHOUS	OSHA	TWA	20 millions of particles/cu. ft.	
Talc	ACGIH	TWA, respirable fraction	2 mg/m3	
Talc	CMRG	TWA, as respirable dust	0.5 mg/m3	
Talc	OSHA	TWA concentration, respirable	0.1 mg/m3	
Talc	OSHA	TWA concentration, as total dust	0.3 mg/m3	
Talc	OSHA	TWA	20 millions of particles/cu. ft.	
Titanium Dioxide	ACGIH	TWA	10 mg/m3	
Titanium Dioxide	CMRG	TWA, as respirable dust	5 mg/m3	
Titanium Dioxide	OSHA	TWA, as total dust	15 mg/m3	
Toluene Diisocyanate	ACGIH	TWA	0.005 ppm	Sensitizer
Toluene Diisocyanate	ACGIH	STEL	0.02 ppm	Sensitizer
Zinc Oxide	ACGIH	TWA, respirable fraction	2 mg/m3	
Zinc Oxide	ACGIH	STEL, respirable fraction	10 mg/m3	
Zinc Oxide	OSHA	TWA, as fume	5 mg/m3	
Zinc Oxide	OSHA	TWA, respirable fraction	5 mg/m3	
Zinc Oxide	OSHA	TWA, as total dust	15 mg/m3	

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists
 CMRG: Chemical Manufacturer Recommended Guideline
 OSHA: Occupational Safety and Health Administration
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	White
General Physical Form:	Solid
Autoignition temperature	<i>Not Applicable</i>
Flash Point	No flash point
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Boiling Point	<i>No Data Available</i>
Density	1.36 g/ml
Vapor Density	<i>No Data Available</i>
Vapor Pressure	<i>No Data Available</i>
Specific Gravity	1.36 [Ref Std: WATER=1]
pH	<i>No Data Available</i>
Melting point	<i>No Data Available</i>
Solubility In Water	<i>No Data Available</i>
Evaporation rate	<i>No Data Available</i>
Hazardous Air Pollutants	0 lb HAPS/lb solids [Test Method: Calculated]
Volatile Organic Compounds	40 g/l [Test Method: tested per EPA method 24] [Details: EU VOC]

Kow - Oct/Water partition coef	content]
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	2.9 % weight
Viscosity	40 g/l [Test Method: tested per EPA method 24]
	100,000 - 500,000 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Heat

10.2 Materials to avoid

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Amines

Alcohols

Water

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Isocyanates

Carbon monoxide

Carbon dioxide

Hydrogen Cyanide

Irritant Vapors or Gases

Oxides of Nitrogen

Condition

During Combustion

During Combustion

During Combustion

During Combustion

During Combustion

During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Test Organism

Test Type

Result

NA % weight

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of completely cured (or polymerized) wastes in a sanitary landfill. Incinerate uncured product in a permitted hazardous waste incinerator in the presence of a combustible material. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):
60-4100-0946-2, 60-4100-0947-0, 60-4100-0967-8, 60-9800-4300-8, 60-9801-0556-7, 60-9801-0843-9, 62-5225-5236-3, 62-5239-5230-7

Not regulated per U.S. DOT, IATA or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M transportation classifications are based on product formulation, packaging, 3M policies and 3M understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	1 - 5
Diethylene Glycol Monoethyl Ether Acetate (GLYCOL ETHERS)	112-15-2	1 - 5
Toluene Diisocyanate	26471-62-5	< 0.5

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
Toluene Diisocyanate	26471-62-5	**Carcinogen

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 1 Reactivity: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:

Section 8: Respiratory protection - recommended respirators was modified.

Section 3: Immediate other hazard(s) was modified.

Section 8: Respiratory protection - recommended respirators guide was modified.

Section 14: ID Number(s) Template 1 was modified.

Section 8: Respiratory protection - recommended respirators punctuation was deleted.

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SECTION 1: Identification

1.1. Product identifier

3M(TM) SILICONE LUBRICANT PLUS; PN 08877

Product Identification Numbers

60-4100-0944-7, 60-4550-6905-8

1.2. Recommended use and restrictions on use

Recommended use

Automotive, High Solids Silicone Lubricant

1.3. Supplier's details

MANUFACTURER: 3M
DIVISION: Automotive Aftermarket

ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Flammable Aerosol: Category 1.

Aspiration Hazard: Category 1.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (central nervous system): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable aerosol.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

May displace oxygen and cause rapid suffocation.

Causes damage to organs:
cardiovascular system |

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF exposed: Call a POISON CENTER or doctor/physician.

Do NOT induce vomiting.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Specific treatment (see Notes to Physician on this label).

Call a POISON CENTER or doctor/physician if you feel unwell.

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

Store in a well-ventilated place.

Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Isobutane	75-28-5	50 - 60 Trade Secret *
Hydrotreated Light Petroleum Distillates	64742-47-8	20 - 40 Trade Secret *
Poly(Dimethylsiloxane)	63148-62-9	7 - 13 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Carbon dioxide

Condition

During Combustion

During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Vapors may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Hydrotreated Light Petroleum Distillates	64742-47-8	CMRG	TWA:165 ppm	
Isobutane	75-28-5	ACGIH	STEL:1000 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray.

If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

As a good industrial hygiene practice:

Wear eye/face protection.

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Wear protective gloves.

Gloves made from the following material(s) are recommended: Butyl Rubber
Nitrile Rubber

Respiratory protection

In case of inadequate ventilation wear respiratory protection. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Aerosol
Odor, Color, Grade:	transparent, solvent odor
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Flash Point	-50.00 °F [<i>Details: Flash point of propellant</i>]
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapor Density	>=1 [<i>Ref Std: AIR=1</i>]
Density	0.65 g/ml
Specific Gravity	0.65 [<i>Ref Std: WATER=1</i>]
Solubility in Water	Nil
Solubility- non-water	<i>No Data Available</i>

Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Hazardous Air Pollutants	0 % weight [Test Method: Calculated]
Volatile Organic Compounds	60 % weight [Test Method: calculated per CARB title 2]
Volatile Organic Compounds	390 g/l [Test Method: calculated SCAQMD rule 443.1]
Percent volatile	60 % weight
VOC Less H2O & Exempt Solvents	390 g/l [Test Method: calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Not determined

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause target organ effects after inhalation.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
Hydrotreated Light Petroleum Distillates	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrotreated Light Petroleum Distillates	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3.0 mg/l
Hydrotreated Light Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly(Dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Poly(Dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Isobutane		No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Poly(Dimethylsiloxane)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

3M(TM) SILICONE LUBRICANT PLUS; PN 08877 06/16/14

Name	Species	Value
Isobutane		No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Poly(Dimethylsiloxane)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Hydrotreated Light Petroleum Distillates	Guinea pig	Not sensitizing

Respiratory Sensitization

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Isobutane	In Vitro	Not mutagenic
Hydrotreated Light Petroleum Distillates	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Hydrotreated Light Petroleum Distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	All data are negative	Mouse	NOAEL Not available	
Hydrotreated Light Petroleum Distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Hydrotreated Light Petroleum Distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,500 ppm	13 weeks

Aspiration Hazard

Name	Value
Hydrotreated Light Petroleum Distillates	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information

3M(TM) SILICONE LUBRICANT PLUS; PN 08877 06/16/14

on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 0 Special Hazards: None

Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group: 19-7433-6

Version Number: 4.00

Issue Date: 06/16/14

Supersedes Date: 07/05/12

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Silicone Lubricant (Dry); PN 08897

MANUFACTURER: 3M

DIVISION: Automotive Aftermarket

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 01/07/2009

Supersedes Date: 03/31/2005

Document Group: 19-7523-4

Product Use:

Intended Use: Automotive

Specific Use: Lubricant

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
ACETONE	67-64-1	20 - 40
PROPANE	74-98-6	20 - 40
HEPTANE	142-82-5	15 - 25
POLY(DIMETHYLSILOXANE)	63148-62-9	1 - 10

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol

Odor, Color, Grade: transparent, solvent odor

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Intentional concentration and inhalation may be harmful or fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. Get immediate medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	-50 °F [Details: Propellant]
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Aerosol container contains flammable gas under pressure. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Fluoroelastomer (Viton), Nitrile Rubber, Polyvinyl Alcohol (PVA), Polyethylene/Ethylene Vinyl Alcohol.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface pressure demand self-contained breathing apparatus. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
ACETONE	ACGIH	TWA	500 ppm	Table A4
ACETONE	ACGIH	STEL	750 ppm	Table A4
ACETONE	OSHA	TWA, Vacated	750 ppm	
ACETONE	OSHA	TWA	1000 ppm	Table Z-1
ACETONE	OSHA	STEL, Vacated	1000 ppm	
HEPTANE	ACGIH	TWA	400 ppm	

HEPTANE	ACGIH	STEL	500 ppm	
HEPTANE	OSHA	TWA, Vacated	400 ppm	
HEPTANE	OSHA	TWA	500 ppm	Table Z-1
HEPTANE	OSHA	STEL, Vacated	500 ppm	
PROPANE	ACGIH	TWA	1000 ppm	
PROPANE	OSHA	TWA	1000 ppm	Table Z-1

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists
 CMRG: Chemical Manufacturer Recommended Guideline
 OSHA: Occupational Safety and Health Administration
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Aerosol
Odor, Color, Grade:	transparent, solvent odor
General Physical Form:	Liquid
Autoignition temperature	<i>No Data Available</i>
Flash Point	-50 °F [<i>Details:</i> Propellant]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Vapor Density	>=1.00 [<i>Ref Std:</i> AIR=1]
Specific Gravity	0.65 [<i>@ 70 °F</i>] [<i>Ref Std:</i> WATER=1]
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Solubility in Water	Moderate
Evaporation rate	<i>No Data Available</i>
Volatile Organic Compounds	60 % [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> excluding exempt compounds]
Volatile Organic Compounds	510.00 [<i>Test Method:</i> calculated SCAQMD rule 443.1] [<i>Details:</i> excluding exempt compounds]
Percent volatile	95.00 %
VOC Less H2O & Exempt Solvents	818.07 g/l [<i>Test Method:</i> calculated SCAQMD rule 443.1]
Viscosity	<i>No Data Available</i>

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Heat

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility. Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

LB-K100-0591-6, 60-4100-0958-7

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
HEPTANE	142-82-5	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 4 Reactivity: 0 Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:

Section 1: Product use information was modified.

Copyright was modified.

Section 9: Property description for optional properties was modified.

Section 9: Specific gravity information was modified.
Section 1: Initial issue message was modified.
Section 14: ID Number Heading Template 1 was added.
Section 14: ID Number(s) Template 1 was added.
Section 2: Ingredient table was added.
Section 15: TSCA section 12[b] text was added.
Section 8: Exposure guidelines ingredient information was added.
Section 8: Exposure guidelines legend was added.
Section 15: TSCA section 12[b] information was added.
Section 8: Exposure guidelines data source legend was added.

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M MARINE MILDEW BLOCK, PN 09065
MANUFACTURER: 3M
DIVISION: Marine & Specialty Vehicle
ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 01/27/2009
Supersedes Date: 08/14/2008
Document Group: 22-8254-9

Product Use:
Specific Use: Protection against mildew
Intended Use: Marine

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
WATER	7732-18-5	60 - 100
STYRENE/ACRYLIC COPOLYMER	Trade Secret	3 - 7
TRI(BUTOXYETHYL) PHOSPHATE	78-51-3	0.5 - 1.5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Emulsion
Odor, Color, Grade: Opaque white.
General Physical Form: Liquid
Immediate health, physical, and environmental hazards:

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
 Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>Not Applicable</i>
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	<i>Not Applicable</i>
Flammable Limits - UEL	<i>Not Applicable</i>

5.2 EXTINGUISHING MEDIA

Material will not burn.

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with detergent and water. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid eye contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors, mists or spray. Avoid prolonged or repeated skin contact. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children.

7.2 STORAGE

Keep container in well-ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid prolonged or repeated skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters.

Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Emulsion
Odor, Color, Grade:	Opaque white.
General Physical Form:	Liquid
Autoignition temperature	<i>Not Applicable</i>
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	<i>Not Applicable</i>
Flammable Limits - UEL	<i>Not Applicable</i>
Boiling point	Approximately 212 °F
Density	8.7 - 8.8 lb/gal
Vapor Density	<i>No Data Available</i>
Vapor Pressure	20 mmHg [<i>@ 70 °F</i>]
Specific Gravity	1.05 [<i>Ref Std: WATER=1</i>]
pH	8.5
Melting point	<i>No Data Available</i>
Solubility in Water	Complete
Evaporation rate	<i>No Data Available</i>
Hazardous Air Pollutants	1.5 % weight
Volatile Organic Compounds	11.25 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>] [<i>Details: excluding exempt compounds</i>]
Volatile Organic Compounds	1.07 % [<i>Test Method: calculated SCAQMD rule 443.1</i>] [<i>Details: excluding exempt compounds</i>]
Percent volatile	Approximately 90 %
VOC Less H2O & Exempt Solvents	182.32 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Viscosity	<i>No Data Available</i>

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
------------------	------------------

Carbon monoxide
Carbon dioxide

During Combustion
During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in an industrial or commercial facility in the presence of a combustible material. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

A Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):
LB-T100-0514-0, 60-4550-3530-7, 60-9801-0733-2

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 1 Flammability: 0 Reactivity: 0 Protection: X - See PPE section.

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:

Copyright was modified.

Section 7: Handling information was modified.

Section 8: Engineering controls information was modified.

Section 8: Eye/face protection phrase was modified.

Section 8: Skin protection phrase was modified.

Section 8: Respiratory protection information was modified.

Section 9: Property description for optional properties was modified.

Section 2: Ingredient table was modified.

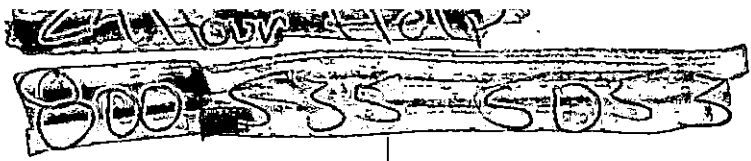
Section 15: EPCRA 313 information was deleted.

Section 15: EPCRA 313 text was deleted.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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3M MSDSs are available at www.3M.com



COMMANDO BLACK TANK CLEANER

PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: COMMANDO BLACK TANK CLEANER
 SDS Number: WAL-116
 Revision Date: 7/2/2024
 Version: 2
 Chemical Formula: WAL-116
 Product Use: Treats Holding Tank Systems

Supplier Details: Walex Products Company Inc
 P.O. Box 3785
 Wilmington, NC 28406

Phone: 910-371-2242
 Fax: 910-371-2094
 Email: info@walex.com
 Web: www.walex.com

INFOTRAC telephone number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

Emergency # 1-800-535-5053 (INFOTRAC USA)
Mfg Contact: +1-352-323-3500 (INFOTRAC INTERNATIONAL) (CALL COLLECT)

HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):
 Health, Skin corrosion/irritation, 2
 Health, Serious Eye Damage/Eye Irritation, 2 A
 Health, Respiratory or skin sensitization, 1 Respiratory

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:



GHS Hazard Statements:

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

GHS Precautionary Statements:

- P102 - Keep out of reach of children.
- P285 - In case of inadequate ventilation wear respiratory protection.
- P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P305 + P351 + P338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P302 + P352 - IF ON SKIN: Wash with soap and water.
- P332 + P313 - If skin irritation occurs: Get medical advice/attention.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Inhalation: Dust of this product may cause irritation of the nose, throat, and respiratory tract. May cause allergic reaction in some individuals.

Skin Contact: Contents of packet causes irritation to the skin.

Eye Contact: Contents of packet will cause serious eye irritation.

Ingestion: Ingestion can cause gastrointestinal irritation, nausea vomiting and diarrhea. May cause irritation of the throat, stomach, and gastrointestinal tract.

This mixture has not been tested as a whole. The effects, listed below, are based on evaluation of individual components in accordance with provisions of the OSHA (Provisions 1910.1200 of title 29).

3 COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Ingredients

CAS#	%	Chemical Name
0	<10%	Surfactant blend
0	<2%	Fragrance Blend
0	<18%	Enzyme
7757-82-6	<65%	Sodium Sulfate

Other components consisting of 60% of the total composition are considered trade secrets and are being excluded from disclosure on this SDS. The hazards of this (these) ingredient (s) are given on this SDS.

4 FIRST AID MEASURES

Inhalation: May cause irritation, sensitisation. May cause allergic reaction in some individuals. Consult a doctor if victim feels unwell.

Skin Contact: May cause dry skin. Remove contaminated clothing immediately. Wash off skin with plenty of water.

Eye Contact: Irritant. May cause redness and pain. Wash out with water for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.

Ingestion: May cause a feeling of sickness, vomiting and diarrhea. Do not induce vomiting. Rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor immediately.

5 FIRE FIGHTING MEASURES

Flash Point: >150 C

Extinguishing media: Carbondioxide (CO2). Foam. Dry chemical. Water fog.

Special protective equipment for fire-fighters: Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Clean up spills immediately. Avoid contact with spilled or released material.

Environmental precautions: Avoid release of product into sewers, surface water and/or ground water.

Methods for cleaning up: Collect spilled material in containers. Dispose at an authorised waste collection point. Wash away remainder with plenty of water.

Other information: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7 HANDLING AND STORAGE

Handling Precautions: Handling: Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes. Avoid breathing dust. Wash thoroughly after handling.

Storage: Keep in a cool, dry and well ventilated place (>35 C). Keep away from oxidation agents.

Recommended packaging: Keep in original container.

Use: use only as directed. Do not mix with other chemicals.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use only in well ventilated areas. Comply with standard precautionary measures for working with chemicals.

Personal Protective Equipment: Skin: not normally needed. Wear impervious gloves for prolonged contact, or if exposed to packet contents.
Respiratory: Not normally needed. If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH/MSHA respiratory protection must be provided.
Eyes: Not normally needed. Wear safety glasses if exposure to packet contents is likely.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid
Physical State: Powder
Odor: Fresh
Odor Threshold: No data
Solubility: 85%
Spec Grav./Density: .5-.6 g/ml
Softening Point: NA
Viscosity: No data
Percent Volatile: 2%
Boiling Point: NA
Freezing/Melting Pt.: No data
Flash Point: No data
Partition Coefficient: No data
Vapor Pressure: No data
Vapor Density: No data
pH: 5-6
VOC: 2%
Evap. Rate: No data
Auto-Ignition Temp: No data
Decomp Temp: No data
UFL / LFL: No data

STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Protect from moisture.
Materials to Avoid: Keep away from strong oxidizing agents.
Hazardous Decomposition: Unknown
Hazardous Polymerization: Not expected to occur

TOXICOLOGICAL INFORMATION

Acute Toxicity:
Oral (LD 50): (LD50:5405 mg/kg)
Inhalation (LC 50): Not determined
Skin irritation: (LD50:6451 mg/kg)
Eye irritation: Causes serious eye irritation

Sensitization: May cause an allergic skin reaction

Sensitization: May cause allergy or Asthma symptoms

ECOLOGICAL INFORMATION

No ecotoxicological research has been carried out on this product.
Ecotoxicity: Not classified as dangerous for the aquatic environment.
Degradability: No specific information known.
Product is considered biodegradable according to OECD guidelines.
Bioaccumulative potential: No specific information known.

DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national, and local laws and regulations. The best practice is to contact a local disposal company. If more information is needed or technical information is required, call Walex Products company at 1-800-338-3155

TRANSPORT INFORMATION

Land transport ADR/RID and GGVS/GGVE: Not classified

Sea transport IMDG/GGVSee: Not classified

Air Transport ICAO-TI and IATA-DGR: Not classified

REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Surfactant blend (0) [<10%]

Fragrance Blend (0) [<2%]

Enzyme (0) [<15%]

Sodium Sulfate (7757-82-6) [n/a%] TSCA

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act

OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

Revision Date: 7/2/2024

Print Date: 07/02/2024



LubriGold Full Synthetic CVT Fluid

Coastal LubriGold Full Synthetic CVT Fluid is a multi-vehicle continuously variable transmission fluid suitable for use in most belt or chain CVT applications. Formulated with synthetic base stocks to ensure long life and compounded with an additive package to ensure exceptional metal-to-metal frictional properties and provide outstanding anti-shudder durability. The extremely low pour point will provide protection during cold weather start-up.

Coastal LubriGold Full Synthetic CVT Fluid provides a well-balanced, high level of both torque capacity and anti-shudder performance to provide enhanced driver comfort and long transmission life. Not recommended for any Honda applications with a starting clutch.

Benefits

- Full synthetic long-life formula
- Outstanding metal-to-metal friction performance
- Excellent wear resistance
- Excellent low temperature fluidity
- Outstanding anti-shudder durability



**WARREN
OIL.**

Warren Oil Company, LLC

Dunn, NC 28334: Benton, AL 36758: San Antonio, TX 78210:
Marion, IL 62959: Johnstown, PA 15909: West Memphis, AR 72301



LubriGold Full Synthetic CVT Fluid

Recommended for the following CVT applications:

Audi Multitronic	
BMW Mini Cooper EZL 799A/ 83 22 0 429 154	
Chery CVT	
Daihatsu AMMIX CVTF DFE	
Daihatsu AMMIX CVT Fluid DC	
Daihatsu AMMIX CVT Fluid DFC	
Daihatsu Fluid TC	
Dodge/Jeep/Chrysler NS-2	
Dodge/Chrysler/Jeep/Mopar CVT+4	
Ford Escape Hybrid with e-CVT	
Fiat Tutela Car CVT N.G	
Fujjyuuko i-CVTF FG	
GM/Saturn DEX-CVT, GM 1940713 and 1940714	
Honda HMMF (without starting clutch)	
Honda HCF2	
Honda Z-1 (CVT without starting clutch)	
Honda CVT (Without starting clutch)	
Honda e:HEV	
Hyundai/Kia CVT-1	
Hyundai/Kia SP III (CVT model)	
Idemitsu CVTF-EX1	
Jatco CVT 8 Hybrid	
Lexus Fluid TC, Fluid FE	
Mazda JWS 3320, Mazda SKYACTIVE-HYBRID	
MB 236.20	
MG Rover EM-CVT	
Mini Cooper EZL 799/EZL 799A/ZF CVT V1	
Mitsubishi CVTF-J1 (MMC Diaqueen CVT Fluid J1)	
Mitsubishi CVTF-J4 and J4+ (MMC Diaqueen CVT Fluid J4 and J4+)	
Mitsubishi CVTF ECO J4	
Mitsubishi (Diaqueen) SP-III (CVT model only)	
Nissan NS-1, NS-2, NS-2V, NS-3 N-CVT, Altima Hybrid	
Punch CVTF-EX1	
Renault Elf Matic CVT	
Renault CVT CK/SK/FK	



**WARREN
OIL.**

Warren Oil Company, LLC

Dunn, NC 28334: Benton, AL 36758: San Antonio, TX 78210:
Marion, IL 62959: Johnstown, PA 15909: West Memphis, AR 72301



LubriGold Full Synthetic CVT Fluid

Shell Green 1V
Subaru iCVT, iCVT FG, ECVT
Subaru Lineartronic Chain CVT and CVT II Fluid
Subaru K0425Y0710, K0425Y0711
Subaru Lineartronic Chain CVT 3 Fluid
Subaru Lineartronic High Torque (HT) CVT Fluid, CV-30, K0421Y0700, CVTF-LV SOA748V0300
Subaru, NS-2, CVT TC, CVTF 3320, CVTF 4401
Subaru CVT Green 1 & 2, Green 1V
Toyota CVTF TC, CVTF FE
Toyota THSII/ Toyota Prius
Toyota THS 4 th Gen./Toyota Noah and Voxy
Volvo CVT 4959
VW/Audi TL 521 16 (G 052 516)
VW/Audi TL 521 80 (G 052 180 A2)
Zotye CVTs

Typical Characteristics:

API Gravity @ 60°F	35.1
Sp. Gr. @ 60°F	0.849
Flash, COC, °F	428
Color	Amber
Pour Pt., °F	-60
Viscosity,	
cSt @ 40°C	35.9
cSt @ 100°C	7.3
Viscosity Index	174
Brookfield Vis @ -40°C, cP	13,780
Part Number	
6/I QT	402292



**WARREN
OIL.**

Warren Oil Company, LLC

Dunn, NC 28334; Benton, AL 36758; San Antonio, TX 78210;
Marion, IL 62959; Johnstown, PA 15909; West Memphis, AR 72301



Safety Data Sheet

Issue Date: 08-Aug-2014

Revision Date: 28-May-2015

Version 1

1. IDENTIFICATION

Product Identifier

Product Name NAPA Power Steering Fluid

Other means of identification

SDS # NAP-001

Synonyms: N/A

Recommended use of the chemical and restrictions on use

Recommended Use Power Steering Fluid.

Details of the supplier of the safety data sheet

Supplier Address

Warren Oil Company
915 E. Jefferson Ave.
West Memphis, AR 72301

Emergency Telephone Number

Company Phone Number 1-870-400-3020
Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300 (North America); 1-703-537-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Amber liquid

Physical State Liquid at room temperature

Odor Petroleum

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	90-100

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
Skin Contact	No treatment is necessary under ordinary circumstances. Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs and persists, seek medical attention. WARNING: Oil injected into the skin from high pressure leaking hydraulic systems can cause severe damage. Most damage occurs during the first few hours. Seek medical attention immediately. Surgical removal of oil may be necessary.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Get medical attention.
Ingestion	If swallowed, DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.

Most important symptoms and effects

Symptoms	This product is irritating to the eyes. This product may cause irritation to the skin. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis. Inhalation of oil mists or fumes can cause irritation of the nose, throat and upper respiratory tract. Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection. If this product is heated over 70 C (155 F) in the presence of water, hydrogen sulfide may be released. Hydrogen sulfide is irritating to the eyes and respiratory system. Continued overexposure may cause respiratory collapse, coma and death without necessarily any warning odor being sensed.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Direct water spray or foam may cause frothing and spattering.

Hazardous Combustion Products Upon decomposition this product may yield oxides of boron, calcium, magnesium, phosphorous, zinc, sulfur including hydrogen sulfide and nitrogen as well as carbon monoxide, carbon dioxide and/or other low molecular weight hydrocarbons.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water to cool fire-exposed containers and to protect personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Surfaces may become slippery after spillage. Wear appropriate protective equipment and clothing during clean-up. Do not allow the spilled product to enter public drainage systems or open water courses.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Stop the flow of material, if this is without risk.

Methods for Clean-Up Absorb with non-flammable suitable absorbent such as sand or earth. Scoop up used absorbent into drums or other appropriate container.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Avoid getting this material into contact with your eyes. Avoid prolonged or repeated skin contact with this material. Avoid the generation of oil mists. Wash thoroughly after handling. Use this product with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Do not store near heat, sparks, open flame or strong oxidizing agents. Do not store this material in open or unlabeled containers. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode.

Incompatible Materials This product may react with strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. If product is heated above 70 C (155 F) in the presence of water, hydrogen sulfide vapors may be released. Ventilation should be sufficient to keep hydrogen sulfide levels below recommended exposure limits. Eye wash fountains are recommended.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses. Wear chemical goggles or face shield if splash or mist occurs.

Skin and Body Protection Use impervious gloves for prolonged contact. Wear oil-impervious garments if contact is unavoidable.

Respiratory Protection If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

General Hygiene Considerations Use good hygiene when handling petroleum product. Launder contaminated clothing before reuse. Excessive misting may cause slippery floors - wear appropriate footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid at room temperature
Appearance Amber liquid
Color Amber

Odor Petroleum
Odor Threshold Not determined

<u>Property</u>	<u>Values</u>
pH	Not available
Melting Point/Freezing Point	Not applicable
Boiling Point/Boiling Range	Not available
Flash Point	204 °C / 400 °F
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Liquid-Not applicable
Upper Flammability Limits	Not available
Lower Flammability Limit	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Specific Gravity	0.86
Water Solubility	Negligible
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not available
Decomposition Temperature	Not determined
Kinematic Viscosity	Not available
Dynamic Viscosity	Not available
Explosive Properties	Not determined
Oxidizing Properties	Not determined

Remarks • Method

Cleveland Open Cup

at 15.6°C (60°F)

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid

Avoid formation of mists.

Incompatible Materials

This product may react with strong oxidizing agents.

Hazardous Decomposition Products

Decomposition of this product may yield oxides of boron, calcium, magnesium, nitrogen, phosphorus, sulfur including hydrogen sulfide and zinc as well as carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.
Skin Contact Avoid contact with skin.
Inhalation Do not inhale.
Ingestion Do not ingest.

Component Information

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Petroleum distillates, hydrotreated heavy paraffinic	Present	X		Present		Present	X	Present	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 311/312 Hazard Categories

- Acute Health Hazard** No
- Chronic Health Hazard** No
- Fire Hazard** No
- Sudden Release of Pressure Hazard** No
- Reactive Hazard** No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

NFPA

Health Hazards

Flammability

Instability

Special Hazards

0

1

0

Not determined

HMIS

Health Hazards

Flammability

Physical Hazards

Personal Protection

1

1

0

Not determined

Issue Date: 08-Aug-2014
 Revision Date: 28-May-2015
 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Safety Data Sheet

Revision Date: 2010-12-01 11:25:27

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: HWH SPECIALTY HYD OIL 12/1QT
Product Code: HW31PSPL
Emergency Phone: (800) 424-9300 (202) 483-7616 (CHEMTREC)
Poison Control Center: (800) 222-1222
Company: Warren Distribution, Inc.
 727 S. 13th St.
 Omaha, NE 68102
Information Phone: (800) 825-1235 (402) 341-9397
Revision Number: 2

II. HAZARDS IDENTIFICATION

Routes of Entry: Inhalation, Ingestion, Skin contact, Eye contact

Chemical Interactions: None Known

Medical Conditions Aggravated by Exposure: No data found.

Acute Health Effects:
Inhalation Irritation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. This product has low volatility. Aerosols or vapors formed at high temperatures may be irritating.

Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Skin Absorption: Minimal hazard in normal industrial use. May cause gastrointestinal discomfort.

Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

Chronic Health Effects:
Carcinogenicity: Not a carcinogen according to NTP, IARC, or OSHA.

Reproductive Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects. Not likely to be a human reproductive hazard.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

Inhalation: Upon prolonged and/or repeated exposure to concentrations above permissible exposure



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limits, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Skin Absorption: Upon prolonged or repeated exposure, minimal hazard in normal industrial use. May cause gastrointestinal discomfort.

Ingestion: Lubricating oils are generally no more than slightly toxic if swallowed.

HMIS Ratings:
Health: 1
Fire: 1
Reactivity: 0
PPE: B

NFPA Ratings:
Health: 1
Fire: 1
Reactivity: 0

KEY: 0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Extreme

III. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	%	CAS #	OSHA Exposure Limits
Petroleum distillates, hydrotreated heavy paraffinic	90 - 99	64742-54-7	No PEL established
Hydrotreated middle distillate	1 - 5	64742-46-7	No PEL established

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

IV. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately. If overcome by vapor from hot product, immediately remove victim to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately. If overexposed to oil mist, remove from further exposure.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Flush eye with water for 20 minutes. Get medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Provide medical care provider with this MSDS.

Notes to Doctor: Aspiration during swallowing or vomiting may severely damage the lungs.

V. FIRE FIGHTING MEASURES

Flammability Summary: Combustible at elevated temperatures

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water



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or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do Not direct a stream of water into the hot burning liquid.

Fire and/or Explosion Hazards: Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire. If heated above its flashpoint in the presence of air, product can support combustion.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Flash Point: 193 °C (379 °F)

Autoignition Temperature: No data

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

VII. HANDLING AND STORAGE

Handling Precautions: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Empty containers may retain product residues/ vapors. Use proper bonding and grounding during bulk product transfer. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Wash thoroughly after handling. Do not get in eyes, on skin and clothing "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Remove contaminated clothing and wash before reuse.

Storage Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Do not expose to extreme temperatures or flames. Store in a cool dry place. Store in a tightly closed container. Keep away from heat, sparks and flame.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator



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comfort. No special ventilation requirements

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Follow a respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements whenever work place conditions warrant the use of a respirator. Wear a NIOSH approved respirator if any exposure is possible.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses. Wear goggles and a Face shield.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

Gloves: Neoprene gloves are recommended.

Control Parameters:

Chemical Name	ACGIH TLV-TWA	ACGIH STEL	IDLH	OSHA STEL
Petroleum distillates, hydrotreated heavy paraffinic	No TLV	No STL	No IDLH	No STEL
Hydrotreated middle distillate	No TLV	No STL	No IDLH	No STEL

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Amber
Odor:	No data
Viscosity:	7.38 cSt @100°C
Solubility in Water:	Negligible; 0-1%
Evaporation Rate:	No data
Vapor Pressure:	No data
Boiling Point (°C):	No data
Specific Gravity:	0.86
Density:	7.19
Flash Point (°C):	193
Flash Point Method:	COC
Upper Flammability Limit, % in air:	Not determined
Lower Flammability Limit, % in air:	Not determined

X. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.



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Conditions to Avoid: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Contamination.

Materials to Avoid: Strong oxidizing agents

Hazardous Decomp. Products: Carbon monoxide, sulfur oxides, aldehydes, and other petroleum decomposition products in the case of incomplete combustion. Oxides of nitrogen, phosphorus, calcium, copper, magnesium, sodium, and hydrogen sulfide may also be present.

Hazardous Polymerization: Will not occur.

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion: Lubricating oils are generally no more than slightly toxic if swallowed.

Inhalation: Toxic! Can cause systemic damage (see "Target Organs"). Respiratory failure is possible at high doses.

Absorption: Minimal hazard in normal industrial use. May cause gastrointestinal discomfort.

Eyes (Draize score): No data.

Skin (Draize score): No data.

Sensitization: No data.

Component Toxicology Data (NIOSH):

Chemical Name	CAS Number	LD50/LC50
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	Inhalation LC50 Rat 2.18 mg/L 4 h; Oral LD50 Rat >2000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg
Petroleum distillates, hydrotreated middle	64742-46-7	Inhalation LC50 Rat 4.6 mg/L 4 h; Oral LD50 Rat 7400 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

XII. ECOLOGICAL INFORMATION

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Persistence: No data.

Bioconcentration: Bioconcentration is not expected to occur.

Degradability: No data.

Toxicity to Aquatic Invertebrates:	CAS Number	Results
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	48 Hr EC50 Daphnia magna: >1000 mg/L
Toluene	108-88-3	48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 Daphnia magna: 11.5 mg/L
Toluene	108-88-3	96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L; 72 Hr EC50 Pseudokirchneriella



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 subcapitata: 12.5 mg/L [static]

Toxicity to Fish:
 Petroleum distillates, hydrotreated heavy paraffinic
 Petroleum distillates, hydrotreated middle

CAS Number
 64742-54-7
 64742-46-7

Results
 96 Hr LC50 Oncorhynchus mykiss: >5000 mg/L
 96 Hr LC50 Pimephales promelas: 35 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >10000 mg/L [static]

XIII. DISPOSAL CONSIDERATIONS

Disposal of Packaging: Recycle containers whenever possible.

Disposal Methods: Dispose of according to Federal, State, Local, or Provincial regulations. Recycle used oil.

XIV. TRANSPORTATION INFORMATION

DOT & IMDG: NOT RESTRICTED

XV. REGULATORY INFORMATION

TSCA Status: All ingredients in this product appear on the TSCA inventory.
NAFTA Tariff Code: 3811.90.0000
State Restrictions: ND
WHMIS: This is not a WHMIS controlled product.

Chemical Name	CAS Number	Regulation	% Range
None Listed.		CERCLA RQ	
Toluene	108-88-3	SARA 313	0.001- 0.01
None Listed.		SARA 302-Extremely Hazardous Substances	
None Listed.		TSCA 12b export notification	
None Listed.		CA Prop 65 – Cancer	
Toluene	108-88-3	CA Prop 65 - Dev. Toxicity	0.001- 0.01
Toluene	108-88-3	CA Prop 65 - Reprod –fem	0.001- 0.01
None Listed		Canadian WHMIS List	
None Listed.		Massachusetts RTK List	
None Listed.		New Jersey RTK List	
None Listed.		Pennsylvania RTK List	



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None Listed.

Minnesota Hazardous
Substance List

None Listed.

Rhode Island Hazardous
Substance List

Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7
 Petroleum distillates, hydrotreated middle 64742-46-7
 Toluene 108-88-3

Canadian Domestic Substance List 90 - 99
 Canadian Domestic Substance List 1 - 5
 Canadian Domestic Substance List 0.001- 0.01

Consumer Product Safety Improvement Act of 2008 General Conformity Certification:

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

XVI. ADDITIONAL INFORMATION

Superseded by: 2010-09-16 09:51:50
Revision Date: 2010-12-01 11:25:27
Created by: HAZEMS

Disclaimer: This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.



Safety Data Sheet California CARB Compliant

1 - Identification

<p>Product Name: WD-40 Multi-Use Product Aerosol</p> <p>Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p>Restrictions on Use: None identified</p> <p>SDS Date Of Preparation: March 5, 2019</p>	<p>Manufacturer: WD-40 Company</p> <p>Address: 9715 Businesspark Avenue San Diego, California, USA 92131</p> <p>Telephone:</p> <p>Emergency: 1-888-324-7596</p> <p>Information: 1-888-324-7596</p> <p>Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)</p>
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2 - Hazards Identification

Hazcom 2012/GHS Classification:

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Prevention

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal

Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant Gas Under Pressure, Compressed Gas

Note: The specific chemical identity and exact percentages are a trade secret.

4 – First Aid Measures

<p>Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.</p> <p>Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.</p> <p>Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.</p> <p>Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.</p> <p>Signs and Symptoms of Exposure: Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.</p> <p>Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.</p>

5 – Fire Fighting Measures

<p>Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.</p> <p>Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.</p> <p>Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.</p>
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6 – Accidental Release Measures

<p>Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.</p> <p>Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.</p>

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
LVP Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m ³ TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m ³ TWA OSHA PEL (as Oil mist, mineral)
Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 - 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established

Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1% MIR=0.43gO3/gVOC	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

<p>Reactivity: Not reactive under normal conditions</p> <p>Chemical Stability: Stable</p> <p>Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.</p> <p>Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.</p> <p>Incompatible Materials: Strong oxidizing agents.</p> <p>Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.</p>		
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11 – Toxicological Information

<p>Symptoms of Overexposure:</p> <p>Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.</p> <p>Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.</p> <p>Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.</p> <p>Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.</p> <p>Chronic Effects: None expected.</p> <p>Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.</p> <p>Reproductive Toxicity: None of the components is considered a reproductive hazard.</p> <p>Numerical Measures of Toxicity: Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.</p>		
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12 – Ecological Information

<p>Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms</p> <p>Persistence and Degradability: Components are readily biodegradable.</p> <p>Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.</p> <p>Mobility in Soil: No data available</p> <p>Other Adverse Effects: None known</p>		
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13 - Disposal Considerations

<p>If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.</p>		
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14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty
(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)
IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY
ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 5, 2019

Supersedes: July 19, 2018

Revision Summary: Section 9 update VOC data

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski

Regulatory Affairs Dept.

1012200/No.0084704



SAFETY DATA SHEET

NAPA DOT 3 BRAKE FLUID

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Issue Date: March 5, 2014

Revised: April 2, 2015

Product Name: NAPA DUTY DOT 3 BRAKE FLUID

Synonyms: Brake Fluid

CAS Number: Mixture, see Section 3

Chemical Formula: Mixture

General Use: Brake Fluid

Manufacturer: Warren Unilube, Inc., 915 E. Jefferson, West Memphis, AR 72301

24-HOUR EMERGENCY NUMBER – CHEMTREC: 1-800-424-9300

WARREN UNILUBE PHONE: (800) 428-9284

FAX: (870) 400-3070

Restrictions on Use:

FOR LABELS FOR THE GENERAL PUBLIC: If medical advice is needed, have product container or label at hand.

Keep out of reach of children and animals.

Read label before use.

FOR THE INDUSTRIAL WORKER: Industrial use only.

SECTION 2: HAZARD(S) IDENTIFICATION

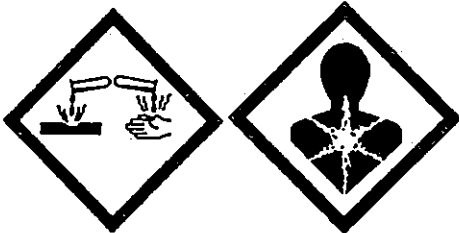
Hazard Classification:

OSHA Hazards: Target Organ Effect, Harmful by ingestion, Irritant, Teratogen, Reproductive hazard

Target Organs: Kidney, Liver, Central nervous system, Female reproductive system, Male reproductive system, Blood.

GHS Classification:

- Acute toxicity, dermal (Category 5)
- Acute toxicity, oral (Category 4)
- Skin Irritation (Category 3)
- Serious eye damage (Category 1)
- Reproductive toxicity (Category 2)



Signal Word: WARNING

Hazard Statements:

- | | |
|------|---|
| H302 | Harmful if swallowed |
| H313 | May be harmful in contact with skin |
| H316 | Causes mild skin irritation |
| H318 | Causes serious eye damage |
| H361 | Suspected of damaging fertility or the unborn child |

Precautionary Statements:

- | | |
|--------------------|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety instructions have been read and Understood. |
| P264 | Wash thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear eye protection / face protection. |
| P301 +P312 | IF SWALLOWED: Call a POISON CENTER or doctor / physician immediately. |
| P330 | IF SWALLOWED: Rinse mouth. |
| P312 | IF ON SKIN: Call a POISON CENTER or doctor / physician if you feel unwell. |
| P332 + P313 | If skin irritation occurs: Get medical advise / attention. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. |
| P310 | IF IN EYES: Immediately call a POISON CENTER or doctor / physician. |
| P308 + P313 | If exposed or concerned: Get medical advice / attention. |

20-80% of the mixture consists of ingredients of unknown acute toxicity.

HMIS Classification

Health hazard: 1
 Chronic Health Hazard
 Flammability 1
 Physical hazards 0

NFPA Rating

Health hazard: 1
 Fire: 1
 Reactivity 0

Description of Any Other Hazards Not Otherwise Classified: none known.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS
--

<u>INGREDIENT Name:</u>	<u>CAS NUMBER</u>	<u>%wt. or %V</u>
Triethylene Glycol Monomethyl Ether	112-35-6	5-50
Triethylene Glycol Monoethyl Ether	112-50-5	5-50
Triethylene Glycol Monobutyl Ether	143-22-6	5-50
Tetrathylene Glycol Monobutyl Ether	1559-34-8	5-20
Polyethylene Glycol	25322-68-3	5-20
Diethylene Glycol Monobutyl Ether	112-34-5	5-20
Diethylene Glycol	111-46-6	5-15
Diethylene Glycol Monomethyl Ether	111-77-3	<5
Diethylene Glycol Monoethyl Ether	111-90-0	<5
Polyalkylene Glycol Monobutyl Ether	9004-77-7	5-20
Polyalkylene Glycol Monomethyl Ether	23783-42-8	5-20
Polyalkylene Glycols	9038-95-3	5-20
Trade Secret Inhibitor Package	Trade Secret	3

3% of the composition of this material has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURE

EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation continues or persists, get medical advice / attention.

SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical advice / attention.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.

UNSUITABLE EXTINGUISHING MEDIA: Direct water stream.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area. Do not use direct water stream to extinguish fires. Do not release runoff from fire control methods to sewers or waterways.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, and unidentified organic compounds.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Wear full protective clothing and NIOSH – approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive breathing mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Insure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.

PROTECTIVE CLOTHING: Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.

EMERGENCY PROCEDURES:

SMALL SPILLS: Contain and recover liquid when possible. Collect liquid in appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

LARGE SPILLS:

Containment: Shut off source of leak if safe to do so. Dike far ahead of liquid spill for later disposal. Do not allow material to enter sewers or waterways.

Cleanup: Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

SECTION 7: HANDLING AND STORAGE

HANDLING PRECAUTIONS: May be harmful or fatal if swallowed.

STORAGE REQUIREMENTS: Store in a cool dry, ventilated area.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Controls should be such that adequate ventilation is provided.

VENTILATION: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work place by controlling it at its source.

RESPIRATORY PROTECTION: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA / NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

EYE PROTECTION: Wear protective eyeglasses or chemical safety goggles, per OSHA eye-and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

SKIN PROTECTION: Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Make emergency eyewash stations, safety / quick drench showers and washing facilities available in work areas.

WORK HYGIENIC PRACTICES: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material especially before eating, drinking or smoking, using the toilet, or applying cosmetics. Separate contaminate work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Discard belts and shoes that cannot be cleaned.

EXPOSURE GUIDELINES:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		USA WEEL
	TWA	STEL	TWA	STEL	TWA	STEL	
Triethylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

Triethylene Glycol Monoethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Triethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Tetraethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Polyethylene Glycol	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	10 mg/m3	
Diethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Diethylene Glycol	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	10 mg/m3	
Diethylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	25 ppm	
Diethylene Glycol Monoethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Diethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Polyalkylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Polyalkylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Polyalkylene Glycols	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	
Inhibitor Package	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE AND COLOR: Yellow to amber

ODOR: Mild

FLASH POINT: >275°F (>135°C)

UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: not available

AUTO IGNITION TEMPERATURE: not available

DECOMPOSITION TEMPERATURE: not available

VAPOR PRESSURE: not available

ODOR THRESHOLD: not available

VAPOR DENSITY (air = 1): >1

pH: 10.0 – 11.5

RELATIVE DENSITY: 8.33 – 9.02 lb/gal

SPECIFIC GRAVITY (H₂O = 1 AT 4 C): 1.000 – 1.070

MELTING POINT / FREEZING POINT: not available

WATER SOLUBILITY: soluble

OTHER SOLUBILITIES: not available

INITIAL BOILING POINT AND BOILING RANGE: 480°F (248.9°C), boiling range not available

EVAPORATION RATE (BuAc = 1): <0.01

PARTITION COEFFICIENT: n-OCTANOL/WATER: not available

VISCOSITY: not available

REFRACTIVE INDEX: not available

FORMULA WEIGHT: mixture

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: none under normal handling.

STABILITY: stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID (STABILITY): none known.

INCOMPATIBILITY (MATERIAL TO AVOID): none known.

HAZARDOUS DECOMPOSITION BY-PRODUCTS: Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide and unknown organic compounds.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID (POLYMERIZATION): Hazardous polymerization will not occur.

HAZARDOUS POLYMERIZATION BY-PRODUCTS: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Swallowing larger amounts may cause nausea and vomiting, abdominal discomfort or diarrhea. May cause dizziness and drowsiness.

ACUTE EFFECTS:

EYE CONTACT: May cause slight eye irritation. May cause slight corneal injury.

SKIN CONTACT: Brief contact is essentially nonirritating to skin.

INHALATION: At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of the upper respiratory tract.

INGESTION: Toxic or fatal if ingested. For diethylene glycol, a component of this mixture, a lethal dose can be as little as two ounces. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, paralysis, cardiac failure or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment.

TARGET ORGAN EFFECTS: Product is toxic to kidneys, liver, central nervous system and heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects.

CHRONIC EFFECTS: May cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Various skin conditions.

ACUTE TOXICITY VALUES

Triethylene Glycol Monomethyl Ether

ORAL LD50 (rat): 11,842 mg/kg

DERMAL LD50 (rabbit): 7,441 mg/kg

INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monoethyl Ether

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Tetraethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,300 mg/kg

DERMAL LD50 (rabbit): 3,505 mg/kg

INHALATION LC50 (state animal): data unavailable

Polyethylene Glycol

ORAL LD50 (state animal): data unavailable

DERMAL LD50 (state animal): data unavailable

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,660 mg/kg

DERMAL LD50 (rabbit): 2,700 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol

ORAL LD50 (rat): 12,565 mg/kg

DERMAL LD50 (rabbit): 11,890 mg/kg

INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monomethyl Ether

ORAL LD50 (rat): >7,000 mg/kg
DERMAL LD50 (rabbit): >20,400 mg/kg
INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monoethyl Ether

ORAL LD50 (rat): 10,502 mg/kg
DERMAL LD50 (rabbit): 9,143 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monobutyl Ether

ORAL LD50 (rat): >2,000 mg/kg
DERMAL LD50 (rat): >2,000 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monomethyl Ether

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycols

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

LISTED CARCINOGEN:

NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC LISTED AS POTENTIAL CARCINOGEN: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA LISTED AS POTENTIAL CARCINOGEN: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12: ECOLOGICAL INFORMATION

DATA FROM TOXICITY TESTS ON AQUATIC AND/OR TERRESTRIAL ORGANISMS:

Triethylene Glycol Monoethyl Ether: data unavailable

Triethylene Glycol Monobutyl Ether: data unavailable

Tetraethylene Glycol Monobutyl Ether: data unavailable

Polyethylene Glycol

Fish: LC50 – Leuciscus idus (Golden orfe) <500 mg/l

Daphnia: data unavailable

Diethylene Glycol Monobutyl Ether

Fish: LC50 – Lepomis macrochirus – 1,300 mg/l – 96h

LC50 – Leuciscus idus (Golden orfe) – >1,000 mg/l – 48h

Daphnia: data unavailable

Diethylene Glycol

Fish: LC50 – Pimephales promelas (fathead minnow) – 75,200 mg/l – 96h

LC50 – Carassius auratus (goldfish) – 5,000 mg/l – 24h

Daphnia: EC50 – Daphnia magna (Water flea) - >10,000 mg/l – 24h

Diethylene Glycol Monomethyl Ether

Fish: LC50 – Lepomis macrochirus – 7,500 mg/l – 96h

Daphnia: data unavailable

Diethylene Glycol Monoethyl Ether

Fish: LC50 – Pimephales promelas (fathead minnow) – 9,650 mg/l – 96h

Daphnia: EC50 – Daphnia magna (Water flea) - >3,340 mg/l – 24h

Polyalkylene Glycol Monobutyl Ether: data unavailable

Polyalkylene Glycol Monomethyl Ether: data unavailable

Polyalkylene Glycols: data unavailable

ENVIRONMENTAL FATE: data unavailable for mixture

BIOACCUMULATION POTENTIAL: data unavailable for mixture

POTENTIAL TO MOVE FROM SOIL TO GROUNDWATER: data unavailable for mixture

OTHER ADVERS ENVIRONMENTAL EFFECTS: data unavailable for mixture

SECTION 13: DISPOSAL CONSIDERATIONS

CONTAINERS TO USE: No specific recommendations

RECOMMENDED DISPOSAL METHODS: Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with Federal, State/Provincial and Local requirements.

PHYSICAL AND CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES:
No specific information available.

WHENEVER POSSIBLE, MATERIAL SHOULD NOT BE ALLOWED TO ENTER SEWAGE DISPOSAL SYSTEMS.

SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION ACTIVITIES: No specific information available.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (49 CFR 172.101)

PROPER SHIPPING NAME: DOT 3 Brake Fluid

DOT Non-Bulk: Not Regulated

DOT Bulk: Not Regulated

IATA

Not Dangerous Goods

IMDG

Not Dangerous Goods

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): all components are listed on the TSCA Inventory

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): None. However, this product contains various ethylene glycols and glycol ethers which are each included as a broad category on the CERCLA Hazardous Substances list.

SARA TITLE III (SUPERFUND AMENDMENTS AND A REAUTHORIZATION ACT): No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

311/312 HAZARD CATEGORIES:

Immediate Hazard: yes / no

Delayed Hazard: yes / no

Fire Hazard: yes / no

Pressure Hazard: yes / no

Reactivity Hazard: yes / no

313 REPORTABLE INGREDIENTS: The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-Ethoxyethoxy) ethanol

2-(2-methoxyethoxy) ethanol

2-(2-Butoxyethoxy) ethanol

CAS Number: 111-90-0

CAS Number: 111-77-3

CAS Number: 112-34-5

CLEAN WATER ACT (CWA): None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

CLEAN AIR ACT (CAA): None of the chemicals in the product are listed as Hazardous Air Pollutants.

STATE REGULATIONS:

California: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts:

2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3

New Jersey:

Triethylene glycol monobutyl ether CAS Number: 143-22-6
Polyethylene glycol CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol CAS Number: 112-34-5
Diethylene glycol CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol CAS Number: 111-90-0

Pennsylvania:

Triethylene glycol monobutyl ether CAS Number: 143-22-6
Polyethylene glycol CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol CAS Number: 112-34-5
Diethylene glycol CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol CAS Number: 111-90-0

INTERNAL REGULATIONS:

Persistent Organic Pollutants (United Nations): not listed
Initial List of Prior Informed Consent Chemicals (United Nations): not listed
Ozone Depleting Substances (Montreal Protocol): not listed
Greenhouse Gases (Intergovernmental Panel on Climate Change): not listed

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES: All components are listed.

CANADA: DOMESTIC SUBSTANCES LIST: All components are listed.

CANADA WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):
D2B - Toxic Material at >1%.

CANADIAN ENVIRONMENTAL PROTECTION AGENCY TOXICS LIST: None of the components of this mixture are listed.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES: This material contains components not listed on the EINECS Inventory: Polyalkylene glycols, CAS Number 9038-95-3.

NEW ZEALAND: All components are listed.

PHILLIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES: All components are listed.

SECTION 16: REGULATORY INFORMATION

Disclaimer: This product is **FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH CHILDREN AND ANIMALS. DO NOT TAKE INTERNALLY.**

Warren Unilube, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specific product designated and may not be valid where such products is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and of the information referred to herein are beyond the control of Warren Unilube, Warren Unilube expressly disclaims any and all liability as to any results obtained or arising from any of the product or reliance on such information.

For additional product information, please contact Warren Unilube, Inc. at (800) 428-9284.



Material Safety Data Sheet

Material Name: EXODOR® ELEMONATE™ GREY WATER HOLDING TANK DEODORIZER

ID: WAL-030

*** Section 1 - Chemical Product and Company Identification ***

Chemical Name: Grey water holding tank deodorizer

Product Use: Grey water tanks

Manufacturer Information

WALEX Products Company, Inc.

P.O. Box 3785

Wilmington, NC 28406

Phone: +1 910 371 2242

Emergency # 1-800-424-9300 (CHEMTREC USA)

Mfg Contact: International: +1 202-483-7613 (call collect)

General Comments

CHEMTREC telephone number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
7487-88-9	Magnesium sulfate	10-15
7558-80-7	Monosodium Phosphate	10-20
Not Available	Fragrance Mixture	8-15
Not Available	Colorant Mixture – Non-Reactive Non-Hazardous	5-15
9004-34-6	Cellulose	5-10
52-51-7	2-Bromo-2-nitro-1,3-propanediol	2-7
63231-67	Silica	10-20
025322-68-3	Polyethylene Glycol	5-10

Component Information/Information on Non-Hazardous Components

Other components consisting of 10-15% of the total composition are considered trade secrets and are being excluded from disclosure on this MSDS under terms of OSHA 29 CFR 1926.29 and 29 CFR 1928.21. The hazards of this (these) ingredient(s) are given on this MSDS.

*** Section 3 - Hazards Identification ***

Emergency Overview

CAUTION Product is granular solid tablet. Contents of packet cause eye irritation. Prolonged contact may cause eye damage. This product may be irritating to the respiratory system and skin.

Potential Health Effects: Eyes

Contents of tablet can cause severe eye irritation, and possible eye damage upon prolonged exposure.

Potential Health Effects: Skin

Contents of packet may cause irritation to the skin.

Potential Health Effects: Ingestion

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause irritation of the throat, stomach, and gastrointestinal tract.

Potential Health Effects: Inhalation

Dusts of this product may cause irritation of the nose, throat, and respiratory tract.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Remove contact lenses, if worn. Immediately flush eyes with lukewarm water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

First Aid: Skin

For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.

Material Safety Data Sheet

Material Name: EXODOR® ELEMONATE™ GREY WATER HOLDING TANK DEODORIZER

ID: WAL-030

First Aid: Ingestion

Do not induce vomiting. Have victim rinse mouth thoroughly with water. Give several glasses of water to dilute contents of stomach and call a physician.

First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. Call a physician if symptoms develop or persist.

*** Section 5 - Fire Fighting Measures ***

Flash Point: >65°C (>150°F)

Upper Flammable Limit (UFL): Not determined

Auto Ignition: Not determined

Rate of Burning: Not determined

General Fire Hazards

None identified.

Hazardous Combustion Products

Irritating and/or toxic gases, including hydrogen bromide and oxides of magnesium, nitrogen, sulfur or sodium, may be emitted upon the product's decomposition.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

Method Used: Not available

Lower Flammable Limit (LFL): Not determined

Flammability Classification: OSHA Class IIIA Combustible

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Containment of this material should not be necessary.

Clean-Up Procedures

Sweep up or gather material and place in appropriate container for disposal. Avoid raising dust. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup.

Evacuation Procedures

Not ordinarily required.

Special Procedures

Wear appropriate personal protective equipment to minimize contact with eyes or skin. Avoid inhalation of dust from the spilled material.

*** Section 7 - Handling and Storage ***

Handling Procedures

Prevent eye and skin contact. Do not handle with wet hands. Prevent inhalation of dust. Wash thoroughly after handling. Avoid prolonged exposure.

Storage Procedures

Store in cool, dry, well-ventilated area in original container. Keep sealed. Keep out of reach of children.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses when handling loose powder during manufacturing.

Personal Protective Equipment: Skin

Wear impervious gloves for prolonged contact during manufacturing.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH/MSHA respiratory protection must be provided.

Material Safety Data Sheet

Material Name: EXODOR® ELEMONATE™ GREY WATER HOLDING TANK DEODORIZER

ID: WAL-030

Personal Protective Equipment: General

Use good industrial hygiene practices in handling this product.

*** Section 9 - Physical & Chemical Properties ***

Appearance: Dry Granular Tablet
Physical State: Dry granular solid
Vapor Pressure: Not applicable
Boiling Point: Not applicable
Solubility (H₂O): >85%
Bulk Density: 60g/100ml

Odor: Fragrance
pH: 6-7
Vapor Density: Not applicable
Melting Point: Not applicable
Specific Gravity: 0.6
Percent Volatile: 10%

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Protect from moisture. Avoid dispersion of dust in air.

Incompatibility

May react with strong oxidizing agents.

Hazardous Decomposition

Irritating and/or toxic fumes and gases, including hydrogen bromide and oxides of magnesium, nitrogen, sulfur or sodium, may be emitted upon the product's decomposition.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Acute and Chronic Toxicity

A: General Product Information

The toxicological properties of this material have not been fully investigated. Product is expected to be harmful if swallowed, and cause eye, skin, respiratory system, and gastrointestinal tract irritation.

B: Component Analysis - LD50/LC50

Polyoxyethylene-polyoxypropylene block copolymer (9003-11-6)

Oral LD50 Rat: 5700 mg/kg; Oral LD50 Mouse: 3 g/kg

2-Bromo-2-nitro-1,3-propanediol (52-51-7)

Inhalation LC50 Rat: >5 g/m³/6h; Oral LD50 Rat: 180 mg/kg; Oral LD50 Mouse: 270 mg/kg

Carcinogenicity

A: General Product Information

The carcinogenic properties of this material have not been fully investigated.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

Components of this product are hazardous to aquatic life.

This product as a whole has an EC50 = 3.56% (15-minutes).

Material Safety Data Sheet

Material Name: EXODOR® ELEMONATE™ GREY WATER HOLDING TANK DEODORIZER

ID: WAL-030

3: Component Analysis - Ecotoxicity - Aquatic Toxicity

2-Bromo-2-nitro-1,3-propanediol (52-51-7)

Test & Species

	Conditions
5 min EC50 Photobacterium phosphoreum	0.91 mg/L
15 min EC50 Photobacterium phosphoreum	0.50 mg/L
30 min EC50 Photobacterium phosphoreum	0.41 mg/L

Environmental Fate

No additional information available.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of empty pouch in trash. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Compounds Cleaning No. 1
Additional Info. Not regulated.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are exempt from listing (i.e. as polymers) or are listed on the confidential inventory as declared by the supplier.

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

Product may be subject to reporting in states other than those listed for individual components.

B: Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

A: General Product Information

No additional information available.

Material Safety Data Sheet

Material Name: EXODOR® ELEMONATE™ GREY WATER HOLDING TANK DEODORIZER

ID: WAL-030

3: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Magnesium sulfate	7487-88-9	Yes	DSL	EINECS
Monosodium Phosphate	7558-80-7	Yes	DSL	EINECS
Polyethylene Glycol	25322-68-3	YES	DSL	EINECS
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IMO = International Maritime Organization; MAC/MAK = Maximum Concentration Value in the Workplace; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; MSHA = Mine Safety and Health Administration; NA = Not Applicable or Not Available; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NLP = No Longer Polymer; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; VLA/VLE = Work Exposure Threshold; SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit; TDG = Transport Dangerous Goods; TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

Page 1 of 6

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Walex Products Company Inc
P.O. Box 3785
Wilmington, NC 28406

Phone: 910-371-2242
Fax: 910-371-2094
Email: info@walex.com
Web: www.walex.com

Product Name: BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER
Revision Date: 5/14/2015
Version: 1
MSDS Number: WAL-010
Product Code: BIOPPBG
Chemical Family: Toilet Deodorizer
Internal ID: WAL-010
Product Use: Preparation of deodorizing solution for holding tanks.

Emergency # 1-800-424-9300 (Chemtrec USA)
Mfg Contact: International: +1-703-527-3887

2 HAZARDS IDENTIFICATION

- Inhalation:** Dust of this product may cause irritation of the nose, throat, and respiratory tract. May cause allergy or asthma symptoms in some individuals.
- Skin Contact:** Contents of packet may cause irritation to the skin.
- Eye Contact:** Contents of Packet will cause eye irritation.
- Ingestion:** Ingestion may cause gastrointestinal irritation, nausea vomiting and diarrhea. May cause irritation of the throat, stomach, and gastrointestinal tract.

GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:
Health, Respiratory or skin sensitization, 1 Respiratory
Health, Serious Eye Damage/Eye Irritation, 2 A



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

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Health, Skin corrosion/irritation, 2

GHS Phrases:

- H334 - May cause allergy or asthma symptoms of breathing difficulties if inhaled
- H319 - Causes serious eye irritation
- H315 - Causes skin irritation

GHS Precautionary Statements:

- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P233 - Keep container tightly closed.
- P264 - Wash _ thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P302+350 - IF ON SKIN: Gently wash with soap and water.
- P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
- P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 - If experiencing respiratory symptoms: Get medical advice/attention.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P315 - Get immediate medical advice/attention.

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Ingredients:

Cas #	Percentage	Chemical Name	GHS Classification
Proprietary	5-10	Ethoxylated Fatty Alcohol	
NA	3-7	Fragrance	
Proprietary	1-3	Cellulase	
9001-05-2	3-8	Catalase	
NA	2-5	Dye	

Other components consisting of 50-60% of the total composition are considered trade secrets and are being excluded from disclosure on this SDS. The hazards of this (these) ingredients (s) are given on this SDS.

FIRST AID MEASURES

- Inhalation:** May cause irritation, sensitisation. Consult a doctor if victim feels unwell.
- Skin Contact:** Remove contaminated clothing immediately. Wash off skin with plenty of water.
- Eye Contact:** Wash out with water for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion:** Do not induce vomiting. Rinse the mouth with water. Give one to two glass of water. Consult a doctor immediately.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

Page 3 of 6

5 FIRE FIGHTING MEASURES

Flash Point: >150 C

Autoignition Temp: >360 C

Extinguishing media: Carbondioxide (CO2). Foam. Dry chemical. Water fog.

Special protective equipment for fire-fighters: Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Clean up spills immediately. Avoid contact with spilled or released material.

Environmental precautions: Avoid release of product into sewers, surface water and/or ground water.

Methods for cleaning up: Collect spilled material in containers. Dispose at an authorised waste collection point. Wash away remainder with plenty of water.

Other information: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7 HANDLING AND STORAGE

Handling Precautions: Handling: Wear proper PPE when contact with packets contents is expected. Avoid contact with skin and eyes. Avoid breathing dust.

Storage: Keep in a cool, dry and well ventilated place (>35 C). Keep away from oxidation agents.

Recommended packaging: Keep in original container.

Use: use only as directed. Do not mix with other chemicals.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use only in well ventilated areas. Comply with standard precautionary measures for working with chemicals.

Personal Protective Equip: Eyes/Face: Not normally needed. Wear goggles if exposure to powder is likely. Body: None required.

Respiratory Protection: Not normally needed. Wear NIOSH approved respiratory if exposure to packets contents is expected.

Hand Protection: Not normally needed. Use impervious gloves if exposed to packets contents.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green Solid
Physical State: Powder
Odor: Fresh
Solubility: 75%
Spec Grav./Density: .5-.6 g/ml
Softening Point: NA
Percent Volatile: 5%
Boiling Point: NA
pH: 4-5
VOC: 5%

10 STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Materials to Avoid: Keep away from strong oxidizing agents.
Hazardous Decomposition: Unknown
Hazardous Polymerization: Not expected to occur

11 TOXICOLOGICAL INFORMATION

No toxicological research has been carried out on this product. Acute Toxicity:

Inhalation:

Acute toxicity: Calculated LC50: 10mg/l.

Sensitisation: Sensitizing. May cause allergic reaction.

Skin:

Irritation: Prolonged contact may dry out and defat the skin

Eye:

Irritation: Irritant

Ingestion:

Acute toxicity: calculated LD50: >5000 mg/kg

Irritation: May cause a feeling of sickness, vomiting and diarrhoea



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

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12	ECOLOGICAL INFORMATION
-----------	-------------------------------

No ecotoxicological research has been carried out on this product.

Ecotoxicity: Not classified as dangerous for the aquatic environment.

Degradability: Product is considered biodegradable according to OECD guidelines.

Bioaccumulative potential: No specific information known.

13	DISPOSAL CONSIDERATIONS
-----------	--------------------------------

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14	TRANSPORT INFORMATION
-----------	------------------------------

Land transport ADR/RID and GGVs/GGVE: Not classified

Sea transport IMDG/GGVSee: Not classified

Air Transport ICAO-TI and IATA-DGR: Not classified

Transport/Further information: Country specific variations may apply

15	REGULATORY INFORMATION
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US Federal Regulations

A: General Product Information
Waste must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Analysis
None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4)

State Regulations

A: General Product Information
Product may be subject to reporting in states other than those listed for individual components.

B: Component Analysis-State
None of this products components are listed on the state lists from CA, MA, MN, NJ, PA, OR RI.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010

Revision Date: 5/14/2015

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Component Analysis-WHMIS IDL
No components are listed in the WHMIS IDL.

16

OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer make no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

Page 1 of 6

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Walex Products Company Inc
P.O. Box 3785
Wilmington, NC 28406

Phone: 910-371-2242
Fax: 910-371-2094
Email: info@walex.com
Web: www.walex.com

Product Name: BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER
Revision Date: 5/14/2015
Version: 1
MSDS Number: WAL-010.2
Product Code: BIOTROPBG
Chemical Family: Toilet Deodorizer
Internal ID: WAL-010.2
Product Use: Preparation of deodorizing solution for holding tanks.

Emergency # 1-800-424-9300 (Chemtrec USA)
Mfg Contact: International: +1-703-527-3887

2 HAZARDS IDENTIFICATION

Inhalation: Dust of this product may cause irritation of the nose, throat, and respiratory tract. May cause allergy or asthma symptoms in some individuals.

Skin Contact: Contents of packet may cause irritation to the skin.

Eye Contact: Contents of Packet will cause eye irritation.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea vomiting and diarrhea. May cause irritation of the throat, stomach, and gastrointestinal tract.

GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:
Health, Respiratory or skin sensitization, 1 Respiratory
Health, Serious Eye Damage/Eye Irritation, 2 A



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

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Health, Skin corrosion/irritation, 2

GHS Phrases:

- H334 - May cause allergy or asthma symptoms of breathing difficulties if inhaled
- H319 - Causes serious eye irritation
- H315 - Causes skin irritation

GHS Precautionary Statements:

- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P233 - Keep container tightly closed.
- P264 - Wash _ thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P302+350 - IF ON SKIN: Gently wash with soap and water.
- P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
- P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 - If experiencing respiratory symptoms: Get medical advice/attention.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P315 - Get immediate medical advice/attention.

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Ingredients:

Cas #	Percentage	Chemical Name	GHS Classification
Proprietary	5-10	Ethoxylated Fatty Alcohol	
NA	3-7	Fragrance	
Proprietary	1-3	Cellulase	
9001-05-2	3-8	Catalase	
NA	2-5	Dye	

Other components consisting of 50-60% of the total composition are considered trade secrets and are being excluded from disclosure on this SDS. The hazards of this (these) ingredients (s) are given on this SDS.

FIRST AID MEASURES

- Inhalation:** May cause irritation, sensitisation. Consult a doctor if victim feels unwell.
- Skin Contact:** Remove contaminated clothing immediately. Wash off skin with plenty of water.
- Eye Contact:** Wash out with water for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion:** Do not induce vomiting. Rinse the mouth with water. Give one to two glass of water. Consult a doctor immediately.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

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5 FIRE FIGHTING MEASURES

Flash Point: >150 C

Autoignition Temp: >360 C

Extinguishing media: Carbondioxide (CO2). Foam. Dry chemical. Water fog.

Special protective equipment for fire-fighters: Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Clean up spills immediately. Avoid contact with spilled or released material.

Environmental precautions: Avoid release of product into sewers, surface water and/or ground water.

Methods for cleaning up: Collect spilled material in containers. Dispose at an authorised waste collection point. Wash away remainder with plenty of water.

Other information: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7 HANDLING AND STORAGE

Handling Precautions: Handling: Wear proper PPE when contact with packets contents is expected. Avoid contact with skin and eyes. Avoid breathing dust.

Storage: Keep in a cool, dry and well ventilated place (>35 C). Keep away from oxidation agents.

Recommended packaging: Keep in original container.

Use: use only as directed. Do not mix with other chemicals.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use only in well ventilated areas. Comply with standard precautionary measures for working with chemicals.

Personal Protective Equip: Eyes/Face: Not normally needed. Wear goggles if exposure to powder is likely.

Body: None required.

Respiratory Protection: Not normally needed. Wear NIOSH approved respiratory if exposure to packets contents is expected.

Hand Protection: Not normally needed. Use impervious gloves if exposed to packets contents.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange solid
Physical State: Powder
Odor: Tropical
Solubility: 75%
Spec Grav./Density: .5-.6 g/ml
Softening Point: NA
Percent Volatile: 5%
Boiling Point: NA
pH: 4-5
VOC: 5%

STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Materials to Avoid: Keep away from strong oxidizing agents.
Hazardous Decomposition: Unknown
Hazardous Polymerization: Not expected to occur

TOXICOLOGICAL INFORMATION

No toxicological research has been carried out on this product. Acute Toxicity:

Inhalation:

Acute toxicity: Calculated LC50: 10mg/l.

Sensitisation: Sensitizing. May cause allergic reaction.

Skin:

Irritation: Prolonged contact may dry out and defat the skin

Eye:

Irritation: Irritant

Ingestion:

Acute toxicity: calculated LD50: >5000 mg/kg

Irritation: May cause a feeling of sickness, vomiting and diarrhoea



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

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12	ECOLOGICAL INFORMATION
-----------	-------------------------------

No ecotoxicological research has been carried out on this product.

Ecotoxicity: Not classified as dangerous for the aquatic environment.

Degradability: Product is considered biodegradable according to OECD guidelines.

Bioaccumulative potential: No specific information known.

13	DISPOSAL CONSIDERATIONS
-----------	--------------------------------

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14	TRANSPORT INFORMATION
-----------	------------------------------

Land transport ADR/RID and GGVS/GGVE: Not classified

Sea transport IMDG/GGVSee: Not classified

Air Transport ICAO-TI and IATA-DGR: Not classified

Transport/Further information: Country specific variations may apply

15	REGULATORY INFORMATION
-----------	-------------------------------

US Federal Regulations

A: General Product Information
Waste must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Analysis
None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4)

State Regulations

A: General Product Information
Product may be subject to reporting in states other than those listed for individual components.

B: Component Analysis-State
None of this products components are listed on the state lists from CA, MA, MN, NJ, PA, OR RI.



GHS Safety Data Sheet

Walex Products Company Inc

BIO-PAK RV TROPICAL NATURAL ENZYME DEODORIZER & WASTE DIGESTER

MSDS Number: WAL-010.2

Revision Date: 5/14/2015

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Component Analysis-WHMIS IDL
No components are listed in the WHMIS IDL.

16	OTHER INFORMATION
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Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.



GHS Safety Data Sheet

WALEX PRODUCTS COMPANY

PORTA-PAK RV LAVENDER

MSDS Number: WAL-009

Revision Date: 5/14/2015

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1

PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

WALEX PRODUCTS COMPANY INC
1949 POPULAR STREET
LELAND, NORTH CAROLINA 28451

Phone: 910-371-2242
Fax: 910371-2094
Email: info@walex.com
Web: www.walex.com

Product Name: PORTA-PAK RV LAVENDER
Revision Date: 5/14/2015
Version: 01
MSDS Number: WAL-009
CAS Number: NA
Product Code: PPRV10LAV
Internal ID: WAL-009
Product Use: USED FOR DEODORIZING HOLDING TANKS

CHEMTREC telephone number is to be used only in the event of chemical emergencies involving a spill; leak, fire, exposure, or accident involving chemicals.

Emergency # 1-800-424-9300 (CHEMTREC USA)
International # +1 703-527-3887 (CHEMTREC INTERNATIONAL) (call collect)

2

HAZARDS IDENTIFICATION

Inhalation: Inhalation of dust may be irritating to the respiratory system. Acute inhalation of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision.

Skin Contact: Contents of packet may cause irritation and/or burns to the skin. May cause allergic reaction in some individuals. Repeated contact may worsen irritation.

Eye Contact: Contents of packet will cause moderate to severe eye irritation and possible eye damage.

Ingestion: This product is harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause irritation or burns to the throat, stomach, and gastrointestinal tract.



GHS Safety Data Sheet

WALEX PRODUCTS COMPANY

PORTA-PAK RV LAVENDER

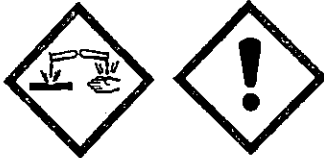
MSDS Number: WAL-009

Revision Date: 5/14/2015

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GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:

- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 1 B
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Respiratory or skin sensitization, 1 Skin

GHS Phrases:

- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H317 - May cause an allergic skin reaction

GHS Precautionary Statements:

- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P404 - Store in a closed container.
- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P331 - Do NOT induce vomiting.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P314 - Get Medical advice/attention if you feel unwell.

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
Proprietary	10-20	Surfactant
52-51-7	3-8	2-Bromo-2-nitropropane-1,3-diol
N/A	3-7	Dye
N/A	10-14	Fragrance
7487-88-7	15-20	Magnesium Sulfate

Other components consisting of 30-40% of the total composition are considered trade secrets and are being excluded from disclosure on this SDS. The hazards of this (these) ingredient (S) are given on this SDS.



GHS Safety Data Sheet

WALEX PRODUCTS COMPANY

PORTA-PAK RV LAVENDER

MSDS Number: WAL-009

Revision Date: 5/14/2015

Page 3 of 5

4.5 FIRST AID MEASURES

Inhalation: If inhaled, immediately remove the affected person to fresh air. Call a physician if symptoms develop or persist.

Skin Contact: For skin contact, remove contaminated clothing, wash immediately with soap and water. May cause allergic skin reaction in certain individuals. If irritation persists, get medical attention.

Eye Contact: Remove contact lenses if worn. Immediately flush eyes with lukewarm water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

Ingestion: Do not induce vomiting. Have victim rinse mouth thoroughly with water. Give several glasses of water to dilute contents of stomach call physician immediately.

5.1 FIRE FIGHTING MEASURES

Flash Point: >150C
Autoignition Temp: Not determined
Dry powder, foam, carbon dioxide.

6.1 ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Sweep up or gather material and place in appropriate container for disposal. Avoid raising dust. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup.

7.1 HANDLING AND STORAGE

Handling Precautions: Prevent eye contact. Do not handle with wet hands. Prevent inhalation of dust. Wash thoroughly after handling. Avoid prolonged exposure.

Storage Requirements: Store in cool/dry area.

8.1 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Not normally needed. Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

Personal Protective Equip: **Skin:** Not normally needed. Wear impervious gloves for prolonged contact, or if exposed to packet contents.
Respiratory: Not normally needed. If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH/MSHA respiratory protection must be provided.
Eyes: Not normally needed. Wear safety glasses if exposure to packet contents is likely.

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this products components.



GHS Safety Data Sheet

WALEX PRODUCTS COMPANY

PORTA-PAK RV LAVENDER

MSDS Number: WAL-009

Revision Date: 5/14/2015

Page 4 of 5

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Purple granular solid	Odor:	Fragrance
Physical State:	Dry granular solid	Solubility:	>85%
Spec Grav/Density:	.55-.67	Percent Volatile:	20%
pH:	5-6		

STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Protect from moisture.
Materials to Avoid:	May react with strong oxidizing agents.
Hazardous Decomposition:	Irritating and/ or toxic fumes and gases, including hydrogen bromide and oxides of magnesium, nitrogen, sulfur or sodium, may be emitted upon the products decomposition.
Hazardous Polymerization:	Will not occur.

TOXICOLOGICAL INFORMATION

Acute Toxicity Estimates (ATEs) based on the individual ingredient Toxicity Data utilizing the "Additivity Formula"

Acute Toxicity:

Oral (LD 50): (LD50: 1047) Harmful if swallowed

Inhalation (LC 50): Not determined

Skin irritation: Causes severe skin burns

Eye irritation: Causes eye damage

Sensitation: May cause an allergic skin reaction

Chronic Toxicity: Not determined

ECOLOGICAL INFORMATION

No ecotoxicological research has been carried out on this product.

Components of this product are hazardous to aquatic life in high concentration.

Product is considered biodegradable according to OECD guidelines.



GHS Safety Data Sheet

WALEX PRODUCTS COMPANY

PORTA-PAK RV LAVENDER

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13 **DISPOSAL CONSIDERATIONS**

Dispose of waste material according to Local, State, and Federal regulations.

14 **TRANSPORT INFORMATION**

Land transport ADR/RID and GGVS/GGVE: Not regulated

15 **REGULATORY INFORMATION**

COMPONENT / (CAS/PERC) / CODES

*Bronopol (52517 n/a%) SARA313, TSCA

REGULATORY KEY DESCRIPTIONS

SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act

CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
EHS302 = Extremely Hazardous Substance
EPCRAWPC = EPCRA Water Priority Chemicals
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJEHS = NJ Extraordinarily Hazardous Substances
NJHS = NJ Right-to-Know Hazardous Substances
NRC = Nationally Recognized Carcinogens
OSHAHTS = OSHA Hazardous and Toxic Substances
OSHAPSM = OSHA Chemicals Requiring process safety management
PA = PA Right-To-Know List of Hazardous Substances
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXAIR = TX Air Contaminants with Health Effects Screening Level
TXHWL = TX Hazardous Waste List

16 **OTHER INFORMATION**

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

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29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Trade name : NAPA® PREM PERF AUTOMATIC TRANSMISSION FLUID

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Valvoline LLC 3499 Blazer Parkway Lexington, KY 40509 United States of America SDS@valvoline.com	Emergency telephone number 1-800-VALVOLINE Regulatory Information Number 1-800-TEAMVAL Product Information 1-800-TEAMVAL
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SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS Label element

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	Asp. Tox. 1; H304	11.82



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MINERAL OIL		Not a hazardous substance or mixture.	5.00
METHACRYLATE COPOLYMER		Eye Irrit. 2A; H319	1.66
ALKOXYLATED LONG-CHAIN ALKYL AMINE		Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 3; H402 Aquatic Chronic 3; H412	0.40

SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities



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of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)
Dry chemical

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Standard procedure for chemical fires.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

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- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
- Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	REL	5 mg/m3 Mist.	NIOSH/GUID E
		STEL	10 mg/m3 Mist.	NIOSH/GUID E
		PEL	5 mg/m3 Mist.	OSHA_TRA NS
MINERAL OIL		REL	5 mg/m3 Mist.	NIOSH/GUID E
		STEL	10 mg/m3 Mist.	NIOSH/GUID E
		PEL	5 mg/m3 Mist.	OSHA_TRA NS
		TWA	5 mg/m3 Mist.	TN OEL
		TWA	5 mg/m3 Inhalable fraction.	ACGIH

- Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions

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exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.
- Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : liquid
- Colour : red
- Odour : hydrocarbon-like
- Odour Threshold : No data available
- pH : No data available
- : No data available
- : No data available
- Flash point : > 390 °F / > 199 °C
Method: Cleveland open cup
- Evaporation rate : > 1
Ethyl Ether
- Flammability (solid, gas) : No data available
- Upper explosion limit : 6 %(V)
GLP: Calculated Explosive Limit
- Lower explosion limit : 1 %(V)

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GLP: Calculated Explosive Limit

Vapour pressure : 0.0133333 hPa (21.11 °C)
Calculated Vapor Pressure

Relative vapour density : No data available

Relative density : 7.29 (15.6 °C)

Density : 0.862 g/cm3 (15.56 °C)

Solubility(ies)
Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-
octanol/water : No data available

Thermal decomposition : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : ca. 43 mm2/s (40 °C)

Oxidizing properties. : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous
reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat

Incompatible materials : Strong oxidizing agents

Hazardous decomposition
products : carbon dioxide and carbon monoxide
Hydrocarbons



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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

ALKOXYLATED LONG-CHAIN ALKYL AMINE:

Acute oral toxicity :

Assessment: The component/mixture is classified as acute oral toxicity, category 4.

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Components:

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result: Mildly irritating to skin

MINERAL OIL:

Result: Mildly irritating to skin

METHACRYLATE COPOLYMER:

Result: Not irritating to skin

ALKOXYLATED LONG-CHAIN ALKYL AMINE:

Result: Corrosive to skin

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result: Mildly irritating to eyes

MINERAL OIL:

Result: Mildly irritating to eyes

METHACRYLATE COPOLYMER:

Result: Irritating to eyes

ALKOXYLATED LONG-CHAIN ALKYL AMINE:

Result: Corrosive to eyes



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Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitisation.

Components:

ALKOXYLATED LONG-CHAIN ALKYL AMINE:

Assessment: May cause sensitization by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.



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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

ALKOXYLATED LONG-CHAIN ALKYL AMINE:

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

CFR RAIL C

Not dangerous goods



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U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG ROAD_C

Not dangerous goods

TDG RAIL_C

Not dangerous goods

TDG INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : No SARA Hazards

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SARA 313 : This material does not contain any chemical components with
Component(s) SARA 313 known CAS numbers that exceed the threshold (De Minimis)
reporting levels established by SARA Title III, Section 313.

Pennsylvania Right To Know

HEAVY PARAFFINIC DISTILLATE	64742-54-7	90.00 - 100.00 %
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	10.00 - 20.00 %
MINERAL OIL	Not Assigned	5.00 - 10.00 %
AUTOMATIC TRANSMISSION FLUID ADDITIVE	Not Assigned	1.00 - 5.00 %

New Jersey Right To Know

HEAVY PARAFFINIC DISTILLATE	64742-54-7	90.00 - 100.00 %
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	10.00 - 20.00 %
MINERAL OIL	Not Assigned	5.00 - 10.00 %
AUTOMATIC TRANSMISSION FLUID ADDITIVE	Not Assigned	1.00 - 5.00 %
METHACRYLATE COPOLYMER	Not Assigned	1.00 - 5.00 %

California Prop 65 Proposition 65 warnings are not required for this product
based on the results of a risk assessment.

The components of this product are reported in the following inventories:

TSCA	: On TSCA Inventory
DSL	: All components of this product are on the Canadian DSL.
AUSTR	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECL	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL
(Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)



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SECTION 16. OTHER INFORMATION

Further information
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<p>NFPA:</p> <p>Health: 1, Flammability: 1, Instability: 0, Special hazard.</p>	<p>HMIS III:</p> <table border="1"> <tr><td>HEALTH</td><td>1</td></tr> <tr><td>FLAMMABILITY</td><td>1</td></tr> <tr><td>PHYSICAL HAZARD</td><td>0</td></tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	1	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	1						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification
Combustible Liquid Class IIIB

Full text of H-Statements referred to under sections 2 and 3.

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H402 Harmful to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-825-8654).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

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ACGIH : American Conference of Industrial Hygienists
BEI : Biological Exposure Index
CAS : Chemical Abstracts Service (Division of the American Chemical Society).
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
FG : Food grade
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement : Hazard Statement
IATA : International Air Transport Association.
IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization
ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population.
ICxx : Inhibitory Concentration for xx of a substance
Ecxx : Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent , Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System

SAFETY DATA SHEET



This Safety Data Sheet (SDS) complies with the requirements of the American National Standards Institute (Z400.1, 1998), U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200), and equivalent state Standards. It has also been developed in accordance with the Canadian Workplace Hazardous Materials Standard and the United Nations Globally Harmonized System of Classification of Chemicals. Refer to Section 16 of this document for the definition of terms and abbreviations.

1. PRODUCT IDENTIFICATION

PRODUCT: ODORLOS HOLDING TANK TREATMENT
PRODUCT CODE: V77000,V77001,V77002,V77003,V77004,V77010,V77011,V77012,V77020.
PRODUCT USE: Vehicle Toilet Maintenance
USES ADVISED AGAINST: Any off-label use.
MANUFACTURER/
SUPPLIER/DISTRIBUTOR: Valterra Products, LLC
ADDRESS: 15230 San Fernando Mission Blvd.; Suite 107
Mission Hills, CA 91345
BUSINESS PHONE #: 818-898-1671
EMERGENCY PHONE #: CHEMTREC:1-800-255-3924; 1-703-527-3887

These products are sold to consumers in containers of relatively small volume. This SDS has been developed to address safety concerns affecting those individuals working in warehouses and other places where large numbers of these containers are stored, as well as those affecting potential users of this product in industrial /occupational or manufacturing settings.

2. HAZARD IDENTIFICATION

GHS HAZARD CLASSIFICATION: Eye Damage/Irritation (Category 1); Skin Corrosion/Irritation (Category 2); Acute toxicity – Oral (Category 4).



LABELING:

- **Pictogram:** See above.
- **Signal Word:** DANGER!
- **Hazard Statement:** H318: Causes serious eye damage. H315: Causes skin irritation. 302: Harmful if swallowed.
- **Precautionary Statements:**
 - **PREVENTION:** P261: Avoid breathing dust or particulates. P264: Wash all exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear gloves and eye protection.
 - **RESPONSE:** P305 + P351 + P338: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of water. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362: Take off contaminated clothing and wash before reuse. P301+312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P330: Rinse mouth.
 - **DISPOSAL:** P501: Dispose of in accordance with local/regional regulations.

2. HAZARD IDENTIFICATION (Continued)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	2	HMIS Personal Protective Equipment Rating: Occupational Use situations: B - Safety glasses and gloves
Flammability	0	
Physical Hazard	0	
Protective Equipment	B	

HAZARDOUS NOT OTHERWISE CLASSIFIED:

- Aquatic Toxicity Classification: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	GHS HAZARD CLASSIFICATION	W/W%
Calcium Nitrate	10124-37-5	Eye Damage (Category 1); Acute toxicity – Oral (Category 4)	>= 30 - < 50
Ammonium Nitrate	6484-52-2	Oxidizing solids (Category 3); Skin irritation (Category 2); Eye irritation (Category 2A)	>= 15 - < 30
None of the other constituents of this product contribute health or physical hazard at the concentrations present in the mixture.			Balance

4. FIRST AID MEASURES

FIRST AID:

- **Eyes:** Hold contaminated eyes open and flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention promptly.
- **Skin:** Flush area with warm, running water. Continue rinsing with water for at least 15 minutes, if any evidence of redness or irritation occurs. Seek medical attention if skin irritation persists.
- **Inhalation:** Obtain fresh air. If necessary, blow nose.
- **Ingestion:** If it is accidentally ingested, rinse mouth. Contact professional medical personnel or the local poison control center for additional guidance.

ACUTE HEALTH EFFECTS:

- **Eyes:** Causes serious eye damage. Prolonged contact can cause chemical burns.
- **Skin:** Causes skin irritation.
- **Inhalation:** May cause irritation of membranes of nose, mouth, throat if dusts or particulates are inhaled.
- **Ingestion:** Harmful if swallowed. In the event this product is swallowed, serious irritation of the nose, throat, and digestive tract can occur. Ingestion may cause nausea, vomiting, and diarrhea. Chemical burns are possible.

CHRONIC HEALTH EFFECTS: None reported.

TARGET ORGANS: Skin, eyes.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Conditions affecting the target organs can be aggravated by overexposure to the product.

5. FIRE-FIGHTING MEASURES

NFPA FLAMMABILITY CLASSIFICATION: Not flammable. See symbol to right.

RECOMMENDED FIRE EXTINGUISHING MEDIA: Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, or any other.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

UNUSUAL HAZARDS IN FIRE SITUATIONS: When involved in a fire, this material may produce very irritating vapors and toxic gases (e.g., calcium compounds and nitrogen oxides).



RECOMMENDATIONS TO FIREFIGHTERS: Wear Self Contained Breathing Apparatus and full protective equipment for fire response. Move containers from fire area if it can be done without risk to personnel. Contaminated equipment should be rinsed thoroughly with water before returning to service.

6. ACCIDENTAL RELEASE MEASURES

RESPONSE TO INCIDENTAL RELEASES: Wear gloves and safety glasses when cleaning-up spills.

RESPONSE TO NON-INCIDENTAL RELEASES: As needed, respond to non-incident chemical releases of this product (such as the simultaneous destruction of several pallets of product) by evacuating the impacted area and contacting appropriate emergency personnel.

- **Specific Procedures:** In the unlikely event of a multi-container release of the product, with no other hazardous condition in the area, the use of an air-purifying respirator with high efficiency particulate air filter, face-shield, safety glasses, and double gloves (e.g. nitrile over latex gloves), and body protection is recommended if mists/sprays could be generated during clean-up.

RESPONSE PROCEDURES FOR ANY RELEASE: Use a damp sponge/polypad to carefully cleanse the contaminated area or items. If appropriate, further clean the contaminated area and equipment with a soap and water solution, followed by a water rinse.

SPILL RESPONSE EQUIPMENT: Polypad or other absorbent material, if needed.

ENVIRONMENTAL PRECAUTIONS: Avoid response actions that can cause a release of a significant amount of the substance into the environment.

REFERENCES TO OTHER SECTIONS:

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

7. HANDLING AND STORAGE

HYGIENE PRACTICES: Keep out of reach of children. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of aerosols, mists, or sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up any spilled product immediately.

HANDLING RECOMMENDATIONS: Avoid skin contact when handling.

INCOMPATIBILITIES: See Section 10 (Stability and Reactivity).

STORAGE RECOMMENDATIONS: Ensure all containers are correctly labeled. Store container in cool, dry place away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals (See Section 10, Stability and Reactivity).

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures).

SPECIFIC END USES: Vehicle cleaning and maintenance.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

U.S. NATIONAL EXPOSURE LIMITS: There are no airborne occupational exposure limits that have been established for components of this product listed in Section 3.

BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS: Not established.

ENGINEERING CONTROLS: Use this product in well-ventilated environment.

RESPIRATORY PROTECTION: None needed under routine circumstances of use.

HAND PROTECTION: Rubber, latex, or neoprene gloves should be used when prolonged contact is anticipated.

EYE PROTECTION: Splash goggles or safety glasses with side shield are recommended if aerosols, mists, splashes or sprays will be generated during use.

BODY PROTECTION: None needed under typical situations of use or handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid and Solid (granule).
COLOR: Colorless.
ODOR: Odorless.
pH: Approximately 5-7 (140 g/L solutions).
BOILING POINT: Approximately 100 °C (212 °F).
MELTING POINT: -4 - 0 °C (25 - 32 °F)
REFRACTIVE INDEX: Not determined.
VISCOCITY: Not determined.
FLASH POINT: Not applicable.
LOWER EXPLOSIVE LIMIT (LEL): Not applicable.
UPPER EXPLOSIVE LIMIT (UEL): Not applicable.
AUTOIGNITION TEMPERATURE: Not applicable.
VAPOR PRESSURE: Not determined.
VAPOR DENSITY (air = 1): Not determined.

DENSITY: 1.52 g/cm³@ 25 °C (77 °F)
EVAPORATION RATE (water = 1): Not determined.
COEFFICIENT OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.
SOLUBILITY: > 100 G/L.
EXPLOSIVE PROPERTIES: Not applicable.
OXIDIZING PROPERTIES: The oxidizing potential of Ammonium Nitrate is reduced upon dilution, but can still cause some oxidization, especially upon prolonged contact.
VOLATILE ORGANIC COMPOUNDS: Not determined.

10. STABILITY AND REACTIVITY

RELATIVE STABILITY (AT STANDARD TEMPERATURES AND PRESSURES): Normally stable.
INCOMPATIBILITIES: Alkalis, combustible materials, reducing materials, organic materials, acids.
HAZARDOUS POLYMERIZATION: Will not occur.
HAZARDOUS CHEMICAL DECOMPOSITION PRODUCTS: Products of thermal decomposition include very irritating vapors and toxic gases (e.g., calcium compounds, nitrogen oxides).
CONDITIONS TO AVOID: Avoid contact with incompatible chemicals.

11. TOXICOLOGY INFORMATION

ACUTE TOXICITY:

- PRODUCT ACUTE TOXICITY ESTIMATES:**

ATE (Oral) > 1000 - < 2,000 mg/kg
 ATE (Dermal) >2000 mg/kg

- COMPONENT TOXICOLOGY DATA:** The following data are available for components of this product.

CALCIUM NITRATE

LD50 (oral, rat) = 500 mg/kg
 LD50 (skin, rat): 200-5000 mg/kg

AMMONIUM NITRATE

LD50 (oral, rat) = 2,950 mg/kg
 LD50 (skin, rat) > 5000 mg/kg

- DEGREE OF IRRITATION:** Contact with this product can cause irritation to skin and serious eye damage. See Section 4 (First Aid Measures) for more details.
- REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazards Information) and Section 4 (First Aid Measures) for additional details. t

Eyes	Causes serious eye damage.
Skin	Causes skin irritation
Inhalation	May cause irritation of membranes of nose, mouth, throat if mists, aerosols, or sprays are inhaled.
Ingestion	Harmful if swallowed. May cause serious irritation of the mouth, throat, and tissues of the digestive system. Chemical burns are possible.

CHRONIC TOXICITY:

- CARCINOGENICITY STATUS:** The following table summarizes the carcinogenicity listing for the components of this product. "NO" indicates that the substance is not considered to be, or suspected to be, a carcinogen by the listed agency

CHEMICAL	IARC	NTP	NIOSH	OSHA	OTHER
CALCIUM NITRATE	NO	NO	NO	NO	NO
AMMONIUM NITRATE	NO	NO	NO	NO	NO

- REPRODUCTIVE TOXICITY INFORMATION:** This product is not known to cause any adverse effect on the human reproductive system.
- TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.

11. TOXICOLOGY INFORMATION

- **MUTAGENIC EFFECTS:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

12. ECOLOGICAL INFORMATION

TOXICITY TO TERRESTRIAL LIFE: Based on available data, this product may be harmful to contaminated plants or animals. Prudent practice would be to minimize all releases to the environment.

TOXICITY TO AQUATIC LIFE Based on available data, this product may be harmful to contaminated plants or animals. Prudent practice would be to minimize all releases to the environment.

AQUATICTOXICOLOGY DATA: The following data are available for components of this product.

CALCIUM NITRATE

LC50 (Fish) = 1,378 mg/l, Fresh water, 96 hours
LC50 (Bluegill) = 2,400 mg/l, Fresh water, 4 days
LC50 (Daphnia) 490 mg/l, Fresh water, 48 hours
EC50 (Algae) > 1,700 mg/l, Salt water, 10 days

AMMONIUM NITRATE

LC50 (Fish) = 447 mg/l, Fresh water, 48 hours
EC50 (Daphnia) = 490 mg/l, Fresh water, 48 hours
EC50 (Algae) = 1,700 mg/l, Salt water, 10 days

MOBILITY, PERSISTENCE, AND DEGRADABILITY: This product is anticipated to be mobile in soil. It is not anticipated to persist in the environment. Good hygiene practices should be implemented to prevent all accidental releases to the environment.

BIOACCUMULATION AND BIOCONCENTRATION POTENTIAL: It is not anticipated that this product will bioaccumulate or bioconcentrate significantly in the environment.

13. DISPOSAL CONSIDERATIONS

WASTE HANDLING RECOMMENDATIONS: Prepare, transport, treat, store, and dispose of waste product according to all applicable local, U.S. State and U.S. Federal regulations, and the applicable Canadian standards.

EPA RCRA WASTE CODE: Not applicable.

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:

PROPER SHIPPING NAME: Not hazardous, per US DOT regulations.

HAZARD CLASSIFICATION: Not applicable.

UN/NA IDENTIFICATION NUMBER: Not applicable.

PACKING GROUP: Not applicable.

LABEL: Not applicable.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK (2016): Not applicable.

OTHER PERTINENT TRANSPORTATION REGULATIONS:

MARINE POLLUTANT STATUS: No component is designated as a DOT Marine Pollutant.

CANADIAN TRANSPORTATION INFORMATION: This product is NOT regulated by Transport Canada as dangerous goods under Canadian transportation standards.

IATA DESIGNATION: This product is NOT regulated as dangerous goods by the International Air Transport Association.

IMO DESIGNATION: This product is NOT regulated as dangerous goods by the International Maritime Organization. See previous information for shipping information

15. REGULATORY INFORMATION

OTHER IMPORTANT U.S. REGULATIONS

CERCLA REPORTING REQUIREMENTS: Not applicable.

SARA SECTION 311/312 FOR PRODUCT: Eye Damage/Irritation; Skin Corrosion/Irritation; Acute Toxicity

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS: No component of this product is known to the State of California to cause cancer or other reproductive harm.

15. REGULATORY INFORMATION (Continued)

SARA REPORTING REQUIREMENTS: The following reporting requirements are applicable to the components of this product:

CHEMICAL	SECTION 302 (40 CFR 355 Appendix A)	SECTION 304 (40 CFR Table 302.4)	SECTION 313 (40 CFR 372.65)
Calcium Nitrate	NO	NO	NO
Ammonium Nitrate	NO	NO	NO

INTERNATIONAL REGULATIONS

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are listed on the DSL/NDSL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITY SUBSTANCES LISTS: The components of this product are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS CLASSIFICATION: See section 2.

16. OTHER INFORMATION

DATE/ SDS PREPARATION: May 6, 2019.

DATE/ SDS REVISION: July 1, 2019.

CHANGE INDICATED: Reformatting of information; review and update of regulatory information.

DEFINITION OF TERMS AND ABBREVIATIONS:

- ALL SECTIONS:** **OSHA:** U.S. Federal Occupational Safety and Health Administration. **WHMIS:** Canadian Workplace Hazardous Materials Standard. **GHS:** Globally Harmonized System of Classification of Chemical Substances.
- SECTION 2: HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING:** This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
- SECTION 3: CAS Number:** Chemical Abstract Service Number, which is used by the American Chemical Society to uniquely identify a chemical.
- SECTION 5: NFPA:** National Fire Protection Association. **NFPA FLAMMABILITY CLASSIFICATION:** The NFPA uses the flash point (F.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: F.P. below 73°F and BP below 100°F. Class IB: F.P. below 73°F and BP at or above 100°F. Class IC: F.P. at or above 73°F and BP at or above 100°F. Class II: F.P. at or above 100°F and below 140°F. Class IIIA: F.P. at or above 140°F and below 200°F. Class IIIB: F.P. at or above 200°F. **HAZARDOUS MATERIALS RATING:** This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard
- SECTION 8: NE:** Not established. **ACGIH:** American Conference of Government Industrial Hygienists; **TWA:** Time-Weighted Average (over an 8-hour work day); **STEL:** Short-Term Exposure Limit (15-minute average, no more than 4-times daily and each exposure separated by one-hour minimally); **C:** Ceiling Limit (concentration not to be exceeded in a work environment). **PEL:** Permissible Exposure Limit. **NIOSH:** National Institute of Occupational Safety and Health; **REL:** Recommended Exposure Limit; **IDLH:** Immediately Dangerous to Life and Health Concentrations. *Note:* In July 1992, a court ruling vacated the more protective PELs set by OSHA in 1989. Because OSHA may enforce the more protective levels under the "general duty clause", both the current and vacated levels are presented in this document. **ppm:** Parts per Million. **mg/m³:** Milligrams per cubic meter. **mppcf:** Millions of Particles per Cubic Foot. **BEI:** Biological Exposure Limit.
- SECTION 9: pH:** Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. **FLASH POINT:** Temperature at which a liquid generates enough flammable vapors so that ignition may occur. **AUTOIGNITION TEMPERATURE:** Temperature at which spontaneous ignition occurs. **LOWER EXPLOSIVE LIMIT (LEL):** The minimal concentration of flammable vapors in air which will sustain ignition. **UPPER EXPLOSIVE LIMIT (UEL):** The maximum concentration of flammable vapors in air which will sustain ignition.
- SECTION 11: CARCINOGENICITY STATUS:** **NTP:** National Toxicology Program. **IARC:** International Agency for Research on Cancer. **REPRODUCTIVE TOXICITY INFORMATION:** **Mutagen:** Substance capable of causing chromosomal damage to cells. **Embryotoxin:** Substance capable of damaging the developing embryo in an overexposed female. **Teratogen:** Substance capable of damaging the developing fetus in an overexposed female. **Reproductive toxin:** Substance capable of adversely affecting male or female reproductive organs or functions. **TOXICOLOGY DATA:** **LD_{xx}** or **LC_{xx}:** The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. **TD_{xx}** or **TC_{xx}:** The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
- SECTION 13: RCRA:** Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. **EPA RCRA Waste Codes:** Defined in 40 CFR Section 261.
- SECTION 15: CERCLA:** Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and **SARA:** (Superfund Amendment and Reauthorization Act). **TSCA:** Toxic Substances Control Act. The regulations promulgated under this Act are located under 40 CFR 300 ff. and provide "community right-to-know" requirements. **DSL/NDSL:** Canadian Domestic Substances and Non-Domestic Substances Lists.

SAFETY DATA SHEET



This Safety Data Sheet (SDS) complies with the requirements of the American National Standards Institute (Z4001, 1998), U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200), and equivalent state Standards. It has also been developed in accordance with the Canadian Workplace Hazardous Materials Standard and the United Nations Globally Harmonized System of Classification of Chemicals. Refer to Section 16 of this document for the definition of terms and abbreviations.

1. PRODUCT IDENTIFICATION

PRODUCT: ODORLOS HOLDING TANK TREATMENT
PRODUCT CODE: V77000,V77001,V77002,V77003,V77004,V77010,V77011,V77012,V77020.
PRODUCT USE: Vehicle Toilet Maintenance
USES ADVISED AGAINST: Any off-label use.

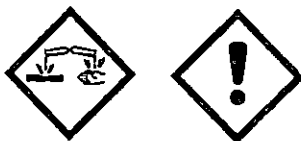
MANUFACTURER/
SUPPLIER/DISTRIBUTOR: Valterra Products, LLC
ADDRESS: 15230 San Fernando Mission Blvd.; Suite 107
Mission Hills, CA 91345

BUSINESS PHONE #: 818-898-1671
EMERGENCY PHONE #: CHEMTREC:1-800-255-3924; 1-703-527-3887

These products are sold to consumers in containers of relatively small volume. This SDS has been developed to address safety concerns affecting those individuals working in warehouses and other places where large numbers of these containers are stored, as well as those affecting potential users of this product in industrial /occupational or manufacturing settings.

2. HAZARD IDENTIFICATION

GHS HAZARD CLASSIFICATION: Eye Damage/Irritation (Category 1); Skin Corrosion/Irritation (Category 2); Acute toxicity – Oral (Category 4).



LABELING:

- **Pictogram:** See above.
- **Signal Word:** DANGER!
- **Hazard Statement:** H318: Causes serious eye damage. H315: Causes skin irritation. 302: Harmful if swallowed.
- **Precautionary Statements:**
 - **PREVENTION:** P261: Avoid breathing dust or particulates. P264: Wash all exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear gloves and eye protection.
 - **RESPONSE:** P305 + P351 + P338: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of water. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362: Take off contaminated clothing and wash before reuse. P301+312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P330: Rinse mouth.
 - **DISPOSAL:** P501: Dispose of in accordance with local/regional regulations.

2. HAZARD IDENTIFICATION (Continued)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	2
Flammability	0
Physical Hazard	0
Protective Equipment	B

HMIS Personal Protective Equipment Rating: Occupational Use situations: B - Safety glasses and gloves

HAZARDOUS NOT OTHERWISE CLASSIFIED:

- Aquatic Toxicity Classification: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	GHS HAZARD CLASSIFICATION	W/W%
Calcium Nitrate	10124-37-5	Eye Damage (Category 1); Acute toxicity – Oral (Category 4)	>= 30 - < 50
Ammonium Nitrate	6484-52-2	Oxidizing solids (Category 3); Skin irritation (Category 2); Eye irritation (Category 2A)	>= 15 - < 30
None of the other constituents of this product contribute health or physical hazard at the concentrations present in the mixture.			Balance

4. FIRST AID MEASURES

FIRST AID:

- **Eyes:** Hold contaminated eyes open and flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention promptly.
- **Skin:** Flush area with warm, running water. Continue rinsing with water for at least 15 minutes, if any evidence of redness or irritation occurs. Seek medical attention if skin irritation persists.
- **Inhalation:** Obtain fresh air. If necessary, blow nose.
- **Ingestion:** If it is accidentally ingested, rinse mouth. Contact professional medical personnel or the local poison control center for additional guidance.

ACUTE HEALTH EFFECTS:

- **Eyes:** Causes serious eye damage. Prolonged contact can cause chemical burns.
- **Skin:** Causes skin irritation.
- **Inhalation:** May cause irritation of membranes of nose, mouth, throat if dusts or particulates are inhaled.
- **Ingestion:** Harmful if swallowed. In the event this product is swallowed, serious irritation of the nose, throat, and digestive tract can occur. Ingestion may cause nausea, vomiting, and diarrhea. Chemical burns are possible.

CHRONIC HEALTH EFFECTS: None reported.

TARGET ORGANS: Skin, eyes.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Conditions affecting the target organs can be aggravated by overexposure to the product.

5. FIRE-FIGHTING MEASURES

NFPA FLAMMABILITY CLASSIFICATION: Not flammable. See symbol to right.

RECOMMENDED FIRE EXTINGUISHING MEDIA: Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, or any other.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

UNUSUAL HAZARDS IN FIRE SITUATIONS: When involved in a fire, this material may produce very irritating vapors and toxic gases (e.g., calcium compounds and nitrogen oxides).



RECOMMENDATIONS TO FIREFIGHTERS: Wear Self Contained Breathing Apparatus and full protective equipment for fire response. Move containers from fire area if it can be done without risk to personnel. Contaminated equipment should be rinsed thoroughly with water before returning to service.

6. ACCIDENTAL RELEASE MEASURES

RESPONSE TO INCIDENTAL RELEASES: Wear gloves and safety glasses when cleaning-up spills.

RESPONSE TO NON-INCIDENTAL RELEASES: As needed, respond to non-incident chemical releases of this product (such as the simultaneous destruction of several pallets of product) by evacuating the impacted area and contacting appropriate emergency personnel.

- **Specific Procedures:** In the unlikely event of a multi-container release of the product, with no other hazardous condition in the area, the use of an air-purifying respirator with high efficiency particulate air filter, face-shield, safety glasses, and double gloves (e.g. nitrile over latex gloves), and body protection is recommended if mists/sprays could be generated during clean-up.

RESPONSE PROCEDURES FOR ANY RELEASE: Use a damp sponge/polypad to carefully cleanse the contaminated area or items. If appropriate, further clean the contaminated area and equipment with a soap and water solution, followed by a water rinse.

SPILL RESPONSE EQUIPMENT: Polypad or other absorbent material, if needed.

ENVIRONMENTAL PRECAUTIONS: Avoid response actions that can cause a release of a significant amount of the substance into the environment.

REFERENCES TO OTHER SECTIONS:

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

7. HANDLING AND STORAGE

HYGIENE PRACTICES: Keep out of reach of children. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of aerosols, mists, or sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up any spilled product immediately.

HANDLING RECOMMENDATIONS: Avoid skin contact when handling.

INCOMPATIBILITIES: See Section 10 (Stability and Reactivity).

STORAGE RECOMMENDATIONS: Ensure all containers are correctly labeled. Store container in cool, dry place away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals (See Section 10, Stability and Reactivity).

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures).

SPECIFIC END USES: Vehicle cleaning and maintenance.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

U.S. NATIONAL EXPOSURE LIMITS: There are no airborne occupational exposure limits that have been established for components of this product listed in Section 3.

BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS: Not established.

ENGINEERING CONTROLS: Use this product in well-ventilated environment.

RESPIRATORY PROTECTION: None needed under routine circumstances of use.

HAND PROTECTION: Rubber, latex, or neoprene gloves should be used when prolonged contact is anticipated.

EYE PROTECTION: Splash goggles or safety glasses with side shield are recommended if aerosols, mists, splashes or sprays will be generated during use.

BODY PROTECTION: None needed under typical situations of use or handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid and Solid (granule).
COLOR: Colorless.
ODOR: Odorless.
pH: Approximately 5-7 (140 g/L solutions).
BOILING POINT: Approximately 100 °C (212 °F).
MELTING POINT: -4 - 0 °C (25 - 32 °F)
REFRACTIVE INDEX: Not determined.
VISCOCITY: Not determined.
FLASH POINT: Not applicable.
LOWER EXPLOSIVE LIMIT (LEL): Not applicable.
UPPER EXPLOSIVE LIMIT (UEL): Not applicable.
AUTOIGNITION TEMPERATURE: Not applicable.
VAPOR PRESSURE: Not determined.
VAPOR DENSITY (air = 1): Not determined.

DENSITY: 1.52 g/cm³@ 25 °C (77 °F)
EVAPORATION RATE (water = 1): Not determined.
COEFFICIENT OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.
SOLUBILITY: > 100 G/L.
EXPLOSIVE PROPERTIES: Not applicable.
OXIDIZING PROPERTIES: The oxidizing potential of Ammonium Nitrate is reduced upon dilution, but can still cause some oxidization, especially upon prolonged contact.
VOLATILE ORGANIC COMPOUNDS: Not determined.

10. STABILITY AND REACTIVITY

RELATIVE STABILITY (AT STANDARD TEMPERATURES AND PRESSURES): Normally stable.
INCOMPATIBILITIES: Alkalis, combustible materials, reducing materials, organic materials, acids.
HAZARDOUS POLYMERIZATION: Will not occur.
HAZARDOUS CHEMICAL DECOMPOSITION PRODUCTS: Products of thermal decomposition include very irritating vapors and toxic gases (e.g., calcium compounds, nitrogen oxides).
CONDITIONS TO AVOID: Avoid contact with incompatible chemicals.

11. TOXICOLOGY INFORMATION

ACUTE TOXICITY:

- PRODUCT ACUTE TOXICITY ESTIMATES:**

ATE (Oral) > 1000 - < 2,000 mg/kg
ATE (Dermal) > 2000 mg/kg

- COMPONENT TOXICOLOGY DATA:** The following data are available for components of this product.

CALCIUM NITRATE

LD50 (oral, rat) = 500 mg/kg
LD50 (skin, rat): 200-5000 mg/kg

AMMONIUM NITRATE

LD50 (oral, rat) = 2,950 mg/kg
LD50 (skin, rat) > 5000 mg/kg

- DEGREE OF IRRITATION:** Contact with this product can cause irritation to skin and serious eye damage. See Section 4 (First Aid Measures) for more details.
- REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazards Information) and Section 4 (First Aid Measures) for additional details. t

Eyes

Causes serious eye damage.

Skin

Causes skin irritation

Inhalation

May cause irritation of membranes of nose, mouth, throat if mists, aerosols, or sprays are inhaled.

Ingestion

Harmful if swallowed. May cause serious irritation of the mouth, throat, and tissues of the digestive system. Chemical burns are possible.

CHRONIC TOXICITY:

- CARCINOGENICITY STATUS:** The following table summarizes the carcinogenicity listing for the components of this product. "NO" indicates that the substance is not considered to be, or suspected to be, a carcinogen by the listed agency

CHEMICAL	IARC	NTP	NIOSH	OSHA	OTHER
CALCIUM NITRATE	NO	NO	NO	NO	NO
AMMONIUM NITRATE	NO	NO	NO	NO	NO

- REPRODUCTIVE TOXICITY INFORMATION:** This product is not known to cause any adverse effect on the human reproductive system.
- TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.

11. TOXICOLOGY INFORMATION

- **MUTAGENIC EFFECTS:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

12. ECOLOGICAL INFORMATION

TOXICITY TO TERRESTRIAL LIFE: Based on available data, this product may be harmful to contaminated plants or animals. Prudent practice would be to minimize all releases to the environment.

TOXICITY TO AQUATIC LIFE: Based on available data, this product may be harmful to contaminated plants or animals. Prudent practice would be to minimize all releases to the environment.

AQUATIC TOXICOLOGY DATA: The following data are available for components of this product.

CALCIUM NITRATE

LC50 (Fish) = 1,378 mg/l, Fresh water, 96 hours
LC50 (Bluegill) = 2,400 mg/l, Fresh water, 4 days
LC50 (Daphnia) 490 mg/l, Fresh water, 48 hours
EC50 (Algae) > 1,700 mg/l, Salt water, 10 days

AMMONIUM NITRATE

LC50 (Fish) = 447 mg/l, Fresh water, 48 hours
EC50 (Daphnia) = 490 mg/l, Fresh water, 48 hours
EC50 (Algae) = 1,700 mg/l, Salt water, 10 days

MOBILITY, PERSISTENCE, AND DEGRADABILITY: This product is anticipated to be mobile in soil. It is not anticipated to persist in the environment. Good hygiene practices should be implemented to prevent all accidental releases to the environment.

BIOACCUMULATION AND BIOCONCENTRATION POTENTIAL: It is not anticipated that this product will bioaccumulate or bioconcentrate significantly in the environment.

13. DISPOSAL CONSIDERATIONS

WASTE HANDLING RECOMMENDATIONS: Prepare, transport, treat, store, and dispose of waste product according to all applicable local, U.S. State and U.S. Federal regulations, and the applicable Canadian standards.

EPA RCRA WASTE CODE: Not applicable.

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:

PROPER SHIPPING NAME: Not hazardous, per US DOT regulations.
HAZARD CLASSIFICATION: Not applicable.
UN/NA IDENTIFICATION NUMBER: Not applicable.
PACKING GROUP: Not applicable.
LABEL: Not applicable.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK (2016): Not applicable.

OTHER PERTINENT TRANSPORTATION REGULATIONS:

MARINE POLLUTANT STATUS: No component is designated as a DOT Marine Pollutant.

CANADIAN TRANSPORTATION INFORMATION: This product is NOT regulated by Transport Canada as dangerous goods under Canadian transportation standards.

IATA DESIGNATION: This product is NOT regulated as dangerous goods by the International Air Transport Association.

IMO DESIGNATION: This product is NOT regulated as dangerous goods by the International Maritime Organization. See previous information for shipping information

15. REGULATORY INFORMATION

OTHER IMPORTANT U.S. REGULATIONS

CERCLA REPORTING REQUIREMENTS: Not applicable.

SARA SECTION 311/312 FOR PRODUCT: Eye Damage/Irritation; Skin Corrosion/Irritation; Acute Toxicity

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS: No component of this product is known to the State of California to cause cancer or other reproductive harm.

15. REGULATORY INFORMATION (Continued)

SARA REPORTING REQUIREMENTS: The following reporting requirements are applicable to the components of this product:

CHEMICAL	SECTION 302 (40 CFR 355 Appendix A)	SECTION 304 (40 CFR Table 302.4)	SECTION 313 (40 CFR 372.65)
Calcium Nitrate	NO	NO	NO
Ammonium Nitrate	NO	NO	NO

INTERNATIONAL REGULATIONS

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are listed on the DSL/NDSL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITY SUBSTANCES LISTS: The components of this product are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS CLASSIFICATION: See section 2.

16. OTHER INFORMATION

DATE/ SDS PREPARATION: May 6, 2019.

DATE/ SDS REVISION: July 1, 2019.

CHANGE INDICATED: Reformatting of information; review and update of regulatory information.

DEFINITION OF TERMS AND ABBREVIATIONS:

- **ALL SECTIONS:** OSHA: U.S. Federal Occupational Safety and Health Administration. WHMIS: Canadian Workplace Hazardous Materials Standard. GHS: Globally Harmonized System of Classification of Chemical Substances.
- **SECTION 2:** HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
- **SECTION 3:** CAS Number: Chemical Abstract Service Number, which is used by the American Chemical Society to uniquely identify a chemical.
- **SECTION 5:** NFPA: National Fire Protection Association. NFPA FLAMMABILITY CLASSIFICATION: The NFPA uses the flash point (F.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: F.P. below 73°F and BP below 100°F. Class IB: F.P. below 73°F and BP at or above 100°F. Class IC: F.P. at or above 73°F and BP at or above 100°F. Class II: F.P. at or above 100°F and below 140°F. Class IIIA: F.P. at or above 140°F and below 200°F. Class IIIB: F.P. at or above 200°F. NFPA HAZARDOUS MATERIALS RATING: This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard
- **SECTION 8:** NE: Not established. ACGIH: American Conference of Government Industrial Hygienists; TWA: Time-Weighted Average (over an 8-hour work day); STEL: Short-Term Exposure Limit (15-minute average, no more than 4-times daily and each exposure separated by one-hour minimally); C: Ceiling Limit (concentration not to be exceeded in a work environment). PEL: Permissible Exposure Limit. NIOSH: National Institute of Occupational Safety and Health; REL: Recommended Exposure Limit; IDLH: Immediately Dangerous to Life and Health Concentrations. *Note*: In July 1992, a court ruling vacated the more protective PELs set by OSHA in 1989. Because OSHA may enforce the more protective levels under the "general duty clause", both the current and vacated levels are presented in this document. ppm: Parts per Million. mg/m³: Milligrams per cubic meter. mppcf: Millions of Particles per Cubic Foot. BEI: Biological Exposure Limit.
- **SECTION 9:** pH: Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. FLASH POINT: Temperature at which a liquid generates enough flammable vapors so that ignition may occur. AUTOIGNITION TEMPERATURE: Temperature at which spontaneous ignition occurs. LOWER EXPLOSIVE LIMIT (LEL): The minimal concentration of flammable vapors in air which will sustain ignition. UPPER EXPLOSIVE LIMIT (UEL): The maximum concentration of flammable vapors in air which will sustain ignition.
- **SECTION 11:** CARCINOGENICITY STATUS: NTP: National Toxicology Program. IARC: International Agency for Research on Cancer. REPRODUCTIVE TOXICITY INFORMATION: Mutagen: Substance capable of causing chromosomal damage to cells. Embryotoxin: Substance capable of damaging the developing embryo in an overexposed female. Teratogen: Substance capable of damaging the developing fetus in an overexposed female. Reproductive toxin: Substance capable of adversely affecting male or female reproductive organs or functions. TOXICOLOGY DATA: LD_{xx} or LC_{xx}: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. TD_{xx} or TC_{xx}: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
- **SECTION 13:** RCRA: Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. EPA RCRA Waste Codes: Defined in 40 CFR Section 261.
- **SECTION 15:** CERCLA: Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and SARA: (Superfund Amendment and Reauthorization Act). TSCA: Toxic Substances Control Act. The regulations promulgated under this Act are located under 40 CFR 300 ff, and provide "community right-to-know" requirements. DSL/NDSL: Canadian Domestic Substances and Non-Domestic Substances Lists.

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Print Date: 10/3/2016

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NAPA® PREMIUM CONVENTIONAL SAE 10W-30 MOTOR OIL
NP75130

Version: 1.2

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**Trade name : NAPA® PREMIUM CONVENTIONAL SAE 10W-30
MOTOR OIL**Relevant identified uses of the substance or mixture and uses advised against**

Details of the supplier of the safety data sheet Valvoline LLC 3499 Blazer Parkway Lexington, KY 40509 United States of America (USA) 1-800-TEAMVAL	Emergency telephone number 1-800-VALVOLINE Regulatory Information Number 1-800-TEAMVAL Product Information 1-800-TEAMVAL
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SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
Benzenesulfonic acid, C10-60-alkyl derivs., sodium salts	90194-32-4	Eye Irrit. 2A; H319	6.225
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	Asp. Tox. 1; H304	2.8117

SECTION 4. FIRST AID MEASURES



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- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)
Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.



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- Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons
- Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
- Further information : Product is compatible with standard fire-fighting agents.
Standard procedure for chemical fires.
Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis



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HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

Hazardous components without workplace control parameters

Components	CAS-No.
Benzenesulfonic acid, C10-60-alkyl derivs., sodium salts	90194-32-4

Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Odour : No data available

Odour Threshold : No data available

pH : No data available

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Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : > 199 °C
Method: Cleveland open cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : 0.0133333 hPa (21.11 °C)
Calculated Vapor Pressure

Relative vapour density : No data available

Relative density : No data available

Density : 0.8686 g/cm³ (15.56 °C)

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Thermal decomposition :
No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : 70 mm²/s (40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.



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Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide
Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Components:

Benzenesulfonic acid, C10-60-alkyl derivs., sodium salts:

Result: No skin irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result: Slight, transient irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

Benzenesulfonic acid, C10-60-alkyl derivs., sodium salts:

Result: Irritating to eyes.

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result: Slight, transient irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure



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Not classified based on available information.
STOT - repeated exposure
Not classified based on available information.
Aspiration toxicity
Not classified based on available information.
Product:
No aspiration toxicity classification

Components:
HYDROTREATED LIGHT PARAFFINIC DISTILLATE:
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Product:
Ecotoxicology Assessment
Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Other adverse effects
No data available
Product:
Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations



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REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

U.S. DOT - ROAD

Not dangerous goods					
---------------------	--	--	--	--	--

CFR RAIL_C

Not dangerous goods					
---------------------	--	--	--	--	--

U.S. DOT - INLAND WATERWAYS

Not dangerous goods					
---------------------	--	--	--	--	--

TDG ROAD_C

Not dangerous goods					
---------------------	--	--	--	--	--

TDG RAIL_C

Not dangerous goods					
---------------------	--	--	--	--	--

TDG INWT_C

Not dangerous goods					
---------------------	--	--	--	--	--

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods					
---------------------	--	--	--	--	--

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods					
---------------------	--	--	--	--	--

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods					
---------------------	--	--	--	--	--

MX_DG

Not dangerous goods					
---------------------	--	--	--	--	--

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant		no			
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : No SARA Hazards

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
NAPHTHALENE 91-20-3

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : Contact your sales representative for additional information.

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : Low volume exemption

IECSC : q (quantity restricted)

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 09/28/2016

NFPA:

HMIS III:

SAFETY DATA SHEET

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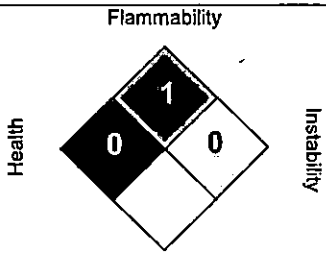
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 <p>Health: 0, Flammability: 1, Instability: 0, Special hazard: 0</p>	<table border="1"> <tr> <td>HEALTH</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

- ACGIH : American Conference of Industrial Hygienists
- BEI : Biological Exposure Index
- CAS : Chemical Abstracts Service (Division of the American Chemical Society).
- CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
- FG : Food grade
- GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
- H-statement : Hazard Statement
- IATA : International Air Transport Association.
- IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
- ICAO : International Civil Aviation Organization
- ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

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IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population.
ICxx : Inhibitory Concentration for xx of a substance
Ecxx : Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent , Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System

**SAFETY DATA SHEET**

Revision Date: 06/07/2018

Print Date: 11/24/2020

SDS Number: R0200299

Valvoline™ DEX/MERC Automatic Transmission Fluid
 ™ Trademark, Valvoline or its subsidiaries, registered in various
 countries
 798153

Version: 1.5

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Trade name : Valvoline™ DEX/MERC Automatic Transmission Fluid
 ™ Trademark, Valvoline or its subsidiaries, registered in
 various countries

Details of the supplier of the safety data sheet

Valvoline LLC
 100 Valvoline Way
 Lexington, KY 40509
 United States of America (USA)
 1-800-TEAMVAL (1-800-832-6825)

Emergency telephone number

1-800-VALVOLINE (1-800-825-8654)

Regulatory Information Number

1-800-TEAMVAL (1-800-832-6825)

Product Information

1-800-TEAMVAL (1-800-832-6825)

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom)	>=90.00 - <= 100.00



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SDS Number: R0200299

Version: 1.5

Valvoline™ DEX/MERC Automatic Transmission Fluid
 ™ Trademark, Valvoline or its subsidiaries, registered in various
 countries
 798153

		2012).	
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	Asp. Tox. 1; H304	>=10.00 - < 15.00
MINERAL OIL		This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	>=1.50 - < 5.00
METHACRYLATE COPOLYMER		Eye Irrit. 2A; H319	>=1.50 - < 5.00

SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current

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Revision Date: 06/07/2018

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Valvoline™ DEX/MERC Automatic Transmission Fluid
™ Trademark, Valvoline or its subsidiaries, registered in various
countries
798153

Version: 1.5

workplace exposure limits is unlikely to cause pulmonary abnormalities.

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:

acne
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Standard procedure for chemical fires.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).



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Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.

Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable fraction	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL
MINERAL OIL		TWA	5 mg/m3	OSHA Z-1



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			Mist	
	TWA	5 mg/m3	Inhalable fraction	ACGIH
	TWA	5 mg/m3	Mist	OSHA P0
	TWA	5 mg/m3	Mist	NIOSH REL
	ST	10 mg/m3	Mist	NIOSH REL
	PEL	5 mg/m3	particulate	CAL PEL

Engineering measures : General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment
Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
 Safety shoes
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid
Colour : red
Odour : hydrocarbon-like
Odour Threshold : No data available
pH : No data available
Melting point/freezing point : No data available



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Boiling point/boiling range : No data available

Flash point : 394 - 480 °F / 201 - 249 °C
 Method: Cleveland open cup

Evaporation rate : > 1
 Ethyl Ether

Flammability (solid, gas) : No data available

Upper explosion limit : 6 %(V)
 GLP: Calculated Explosive Limit

Lower explosion limit : 1 %(V)
 GLP: Calculated Explosive Limit

Vapour pressure : 0.0133333 hPa (21.11 °C)
 Calculated Vapor Pressure

Relative vapour density : No data available

Relative density : No data available

Density : 0.862 g/cm³ (15.56 °C)

Solubility(ies)
 Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-
 octanol/water : No data available

Thermal decomposition : No data available

Viscosity
 Viscosity, dynamic : No data available

Viscosity, kinematic : ca. 43 mm²/s (40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.



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Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide
Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Acute oral toxicity : LD50 (Rat): > 15 g/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Result: Slight, transient irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result: Slight, transient irritation

MINERAL OIL:

Result: Slight, transient irritation

METHACRYLATE COPOLYMER:

Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:



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DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:
Result: No eye irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:
Result: Slight, transient irritation

MINERAL OIL:
Result: Slight, transient irritation

METHACRYLATE COPOLYMER:
Result: Irritating to eyes.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.
Product:
Assessment: Does not cause skin sensitisation.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Product:
No aspiration toxicity classification

Components:
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:
No aspiration toxicity classification

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: No data available

Carcinogenicity:
IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or



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equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): > 10,000 mg/l
Exposure time: 48 h

Toxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l

Persistence and degradability

Components:

No data available

Bioaccumulative potential

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n-octanol/water : log Pow: Expected > 7

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available



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Product:

Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods



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INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant

no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory



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- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

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<p>NFPA:</p> <div style="text-align: center;"> <p>Flammability</p> <p>Health Instability</p> <p>Special hazard.</p> </div>	<p>HMIS III:</p> <table border="1" style="width: 100%;"> <tr> <td style="background-color: black; color: white;">HEALTH</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: black; color: white;">FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: black; color: white;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification
 Combustible Liquid Class III B

Full text of H-Statements

- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet
 Valvoline internal data including own and sponsored test reports

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The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association



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NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System

RV Digest-It Holding Tank Treatment

Safety Data Sheet

SECTION 1: Identification

1.1. Identification	
Product name	: RV Digest-It Holding Tank Treatment
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/mixture	RV Holding Tank Treatment
1.3. Details of the supplier of the safety data sheet	
Unique Manufacturing and Marketing 5752 Lamar St. Arvada, CO 80002	
1.4. Emergency telephone number	
Emergency number	720-798-6122

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture	
GHS US classification	Not classified
2.2. Label elements	
GHS US labeling	No labeling applicable
2.3. Other hazards	
No additional information available	
<input type="checkbox"/> Unknown acute toxicity (GHS US)	
Not applicable	

SECTION 3: Composition/Information on ingredients

3.1. Substances		
Not applicable		
3.2. Mixtures		
Name	Product identifier	%
Water	(CAS-No.) 7732-18-5	> 90
Alcohols, C9-11, ethoxylated	(CAS-No.) 68439-46-3	Proprietary
1,2-Propanediol	(CAS-No.) 57-55-6	Proprietary
Trisodium citrate dihydrate	(CAS-No.) 6132-04-3	Proprietary
Proxel GXL	Mixture	Proprietary
Subtilisins (proteolytic enzymes)	(CAS-No.) 9014-01-1	Proprietary
Amylase, .alpha.-	(CAS-No.) 9000-90-2	Proprietary
Cellulase	(CAS-No.) 9012-54-8	Proprietary
Lipase, triacylglycerol	(CAS-No.) 9001-62-1	Proprietary
Kathon CG/ICP	Mixture	Proprietary
Viable bacteria cultures	None	Proprietary
Fragrance	Mixture	Proprietary

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures after inhalation	: No specific first aid necessary for this route of exposure.
First-aid measures after skin contact	: In case of contact, wash area with soap and water, apply a topical antiseptic agent.
First-aid measures after eye contact	: Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

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First-aid measures after ingestion : Give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : Prolonged or repeated exposure may cause irritation. Bacterial infection may occur through open wounds or broken skin.
 Symptoms/injuries after eye contact : May cause redness and irritation.
 Symptoms/injuries after ingestion : May cause nausea, vomiting and diarrhea if ingested.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
 Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.
 Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid eye and skin exposure. Wash thoroughly after handling. Keep out of reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry place. Do not freeze. Keep container tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Propanediol (57-55-6)			
AIHA	WEEL TWA		10 mg/m ³
Subtilisins (proteolytic enzymes) (9014-01-1)			
ACGIH	ACGIH OEL Ceiling		0.00006 mg/m ³
NIOSH	NIOSH REL (STEL)		0.00006 mg/m ³

8.2. Exposure controls

Appropriate engineering controls and protection : None required under normal product handling conditions.
 : Wear impervious gloves to minimize skin contact.

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Eye protection : Use safety glasses if splashing is likely.
 Skin and body protection : Wear suitable working clothes.
 Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
 Appearance : Translucent.
 Color : None
 Odor : Fragrant
 Odor threshold : No data available
 pH : No data available
 Melting point : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Relative evaporation rate (butyl acetate=1) : No data available
 Flammability (solid, gas) : No data available
 Vapor pressure : No data available
 Relative vapor density at 20 °C : No data available
 Relative density : No data available
 Solubility : Miscible with water.
 Partition coefficient n-octanol/water (Log Pow) : No data available
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 Explosion limits : No data available
 Explosive properties : No data available
 Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Water (7732-18-5)

D50 oral rat : > 90 ml/kg

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Alcohols, C9-11, ethoxylated (68439-46-3)	
LD50 oral rat	1400 mg/kg
ATE US (oral)	1378 mg/kg

1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
ATE US (oral)	20000 mg/kg body weight
ATE US (dermal)	20800 mg/kg body weight

Subtilisins (proteolytic enzymes) (9014-01-1)	
LD50 oral rat	3700 mg/kg
ATE US (oral)	500 mg/kg body weight

Amylase, .alpha.- (9000-90-2)	
LD50 oral rat	> 7500 mg/kg

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitization : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified
 Reproductive toxicity : Not classified
 STOT-single exposure : Not classified
 STOT-repeated exposure : Not classified
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

1,2-Propanediol (57-55-6)	
LC50 - Fish [1]	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish [2]	41 – 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

1,2-Propanediol (57-55-6)	
BCF - Fish [1]	< 1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

in accordance with DOT
 not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
1,2-Propanediol (57-55-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subtilisins (proteolytic enzymes) (9014-01-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Amylase, .alpha.- (9000-90-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Cellulase (9012-54-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Lipase, triacylglycerol (9001-62-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. US State regulations

1,2-Propanediol (57-55-6)	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Scrub-It

Safety Data Sheet

SECTION 1: Identification

1.1. Identification	
Product name	: RV Toilet Cleaner
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/mixture	: Toilet Cleaner
1.3. Details of the supplier of the safety data sheet	
Unique Manufacturing and Marketing 5752 Lamar St. Arvada, CO 80002	
1.4. Emergency telephone number	
Emergency number	: 800-476-1608

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture	
GHS US classification Not classified	
2.2. Label elements	
GHS US labeling No labeling applicable	
2.3. Other hazards	
No additional information available	
2.4. Unknown acute toxicity (GHS US)	
Not applicable	

SECTION 3: Composition/Information on ingredients

3.1. Substances	
Not applicable	
3.2. Mixtures	

Name	Product identifier	%
Water	(CAS-No.) 7732-18-5	> 90
Acrylate copolymer	Proprietary	1 – 5
Fatty acids, C12-18, methyl esters, sulfonated, sodium salts	(CAS-No.) 149458-07-1	1 – 5
Sodium sulfate	(CAS-No.) 7757-82-6	1 – 5
Disodium carbonate	(CAS-No.) 497-19-8	1 – 3
Fatty acids, C12-18, methyl esters	(CAS-No.) 68937-84-8	1 – 5
Sulfuric Acid Mono-C10-16-alkyl esters sodium salts	Proprietary	Trade Secret
Viable Bacillus Bacteria	None	Trade Secret
Preserving Agent 1	Proprietary	Trade Secret
Preserving Agent 2	Proprietary	Trade Secret
Buffering Agent 1	Proprietary	Trade Secret
Buffering Agent 2	Proprietary	Trade Secret
C.I. Acid Blue 9, disodium salt	(CAS-No.) 3844-45-9	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures after inhalation	: No specific first aid necessary for this route of exposure.
First-aid measures after skin contact	: In case of contact, wash area with soap and water, apply a topical antiseptic agent.
First-aid measures after eye contact	: Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

Scrub-It

Safety Data Sheet

First-aid measures after ingestion : Give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

3. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : Prolonged or repeated exposure may cause irritation. Bacterial infection may occur through open wounds or broken skin.
 Symptoms/injuries after eye contact : May cause redness and irritation.
 Symptoms/injuries after ingestion : May cause nausea, vomiting and diarrhea if ingested.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
 Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.
 Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid eye and skin exposure. Wash thoroughly after handling. Keep out of reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry place. Do not freeze. Keep container tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.
 Hand protection : Wear impervious gloves to minimize skin contact.
 Eye protection : Use safety glasses if splashing is likely.
 Skin and body protection : Wear suitable working clothes.
 Respiratory protection : None required under normal product handling conditions.

Scrub-It

Safety Data Sheet

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Blue
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Miscible with water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Water (7732-18-5)	
LD50 oral rat	> 90 ml/kg
C.I. Acid Blue 9, disodium salt (3844-45-9)	
LD50 oral rat	> 2 g/kg
Disodium carbonate (497-19-8)	
LD50 oral rat	4090 mg/kg

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Disodium carbonate (497-19-8)	
ATE US (oral)	4090 mg/kg
Sodium sulfate (7757-82-6)	
LD50 oral rat	> 10000 mg/kg
LD50 dermal rabbit	> 4 g/kg
Fatty acids, C12-18, methyl esters (68937-84-8)	
LD50 oral rat	> 2000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
C.I. Acid Blue 9, disodium salt (3844-45-9)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Disodium carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	265 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	310 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Sodium sulfate (7757-82-6)	
LC50 - Fish [1]	13500 – 14500 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 - Crustacea [1]	2564 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	> 6800 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Fatty acids, C12-18, methyl esters (68937-84-8)	
LC50 - Fish [1]	550 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Disodium carbonate (497-19-8)	
BCF - Fish [1]	(no bioaccumulation)
Fatty acids, C12-18, methyl esters (68937-84-8)	
Partition coefficient n-octanol/water (Log Pow)	6.02 – 7.81

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

Scrub-It

Safety Data Sheet

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
C.I. Acid Blue 9, disodium salt (3844-45-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Disodium carbonate (497-19-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Fatty acids, C12-18, methyl esters, sulfonated, sodium salts (149458-07-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	P - P - indicates a commenced Premanufacture Notice (PMN) substance.
Sodium sulfate (7757-82-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Fatty acids, C12-18, methyl esters (68937-84-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. US State regulations

C.I. Acid Blue 9, disodium salt (3844-45-9)	
U.S. - Massachusetts - Right To Know List	
Sodium sulfate (7757-82-6)	
U.S. - Massachusetts - Right To Know List	
U.S. - Pennsylvania - RTK (Right to Know) List	

California -Proposition 65

The Acrylate copolymer in this product contains the following chemical known to the state of California to cause cancer and/or birth defects based on the maximum impurity levels of components:

Chemical	Product identifier	Quantity
Ethyl acrylate	(CAS-No.) 140-88-5	< 1 PPM

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Store-It Safety Data Sheet

SECTION 1: Identification

1.1. Identification	
Product name	: Store-It
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/mixture	Holding Tank Cleaner
1.3. Details of the supplier of the safety data sheet	
Unique Manufacturing and Marketing 5752 Lamar St. Arvada, CO 80002	
1.4. Emergency telephone number	
Emergency number	720-798-6122

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture	
GHS US classification	Not classified
2.2. Label elements	
GHS US labeling	No labeling applicable
2.3. Other hazards	
No additional information available	
4. Unknown acute toxicity (GHS US)	
Not applicable	

SECTION 3: Composition/Information on ingredients

3.1. Substances	
Not applicable	
3.2. Mixtures	

Name	Product identifier	%
Water	(CAS-No.) 7732-18-5	> 90
Alcohols, C9-11, ethoxylated	(CAS-No.) 68439-46-3	Proprietary
1,2-Propanediol	(CAS-No.) 57-55-6	Proprietary
Trisodium citrate dihydrate	(CAS-No.) 6132-04-3	Proprietary
Proxel GXL	Mixture	Proprietary
Subtilisins (proteolytic enzymes)	(CAS-No.) 9014-01-1	Proprietary
Amylase, .alpha.-	(CAS-No.) 9000-90-2	Proprietary
Cellulase	(CAS-No.) 9012-54-8	Proprietary
Lipases, triacylglycerol	(CAS-No.) 9001-62-1	Proprietary
Kathon CG/ICP	Mixture	Proprietary
Viable bacteria cultures	None	Proprietary
Fragrance	Mixture	Proprietary

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures after inhalation	: No specific first aid necessary for this route of exposure.
First-aid measures after skin contact	: In case of contact, wash area with soap and water, apply a topical antiseptic agent.
First-aid measures after eye contact	: Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

Store-It Safety Data Sheet

First-aid measures after ingestion : Give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : Prolonged or repeated exposure may cause irritation. Bacterial infection may occur through open wounds or broken skin.
 Symptoms/injuries after eye contact : May cause redness and irritation.
 Symptoms/injuries after ingestion : May cause nausea, vomiting and diarrhea if ingested.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
 Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.
 Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid eye and skin exposure. Wash thoroughly after handling. Keep out of reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry place. Do not freeze. Keep container tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Propanediol (57-55-6)			
AIHA	WEEL TWA		10 mg/m ³
Subtilisins (proteolytic enzymes) (9014-01-1)			
ACGIH	ACGIH OEL Ceiling		0.00006 mg/m ³
NIOSH	NIOSH REL (STEL)		0.00006 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.
 Personal protection and protection : Wear impervious gloves to minimize skin contact.

Store-It Safety Data Sheet

Eye protection : Use safety glasses if splashing is likely.
Skin and body protection : Wear suitable working clothes.
Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Translucent.
Color : None
Odor : Fragrant
Odor threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Solubility : Miscible with water.
Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Water (7732-18-5)

LD50 oral rat : > 90 ml/kg

Store-It Safety Data Sheet

Alcohols, C9-11, ethoxylated (68439-46-3)	
D50 oral rat	1400 mg/kg
TE US (oral)	1378 mg/kg

1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
ATE US (oral)	20000 mg/kg body weight
ATE US (dermal)	20800 mg/kg body weight

Subtilisins (proteolytic enzymes) (9014-01-1)	
LD50 oral rat	3700 mg/kg
ATE US (oral)	500 mg/kg body weight

Amylase, .alpha.- (9000-90-2)	
LD50 oral rat	> 7500 mg/kg

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitization : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified
 Reproductive toxicity : Not classified
 STOT-single exposure : Not classified
 STOT-repeated exposure : Not classified
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

1,2-Propanediol (57-55-6)	
LC50 - Fish [1]	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish [2]	41 – 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

1,2-Propanediol (57-55-6)	
BCF - Fish [1]	< 1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)
 In accordance with DOT
 Not applicable

Store-It Safety Data Sheet

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
1,2-Propanediol (57-55-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subtilisins (proteolytic enzymes) (9014-01-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Amylase, .alpha.- (9000-90-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Cellulase (9012-54-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Lipase, triacylglycerol (9001-62-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. US State regulations

1,2-Propanediol (57-55-6)	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Sensor Cleaner

Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : Sensor Cleaner

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Holding tank sensor maintenance

1.3. Details of the supplier of the safety data sheet

Unique Manufacturing and Marketing
5752 Lamar St.
Arvada, CO 80002

1.4. Emergency telephone number

Emergency number : 720-798-6122

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. Label elements

GHS US labeling
No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Water	(CAS-No.) 7732-18-5	> 85
Alcohols, C9-11, ethoxylated	(CAS-No.) 68439-46-3	Proprietary
1,2-Propanediol	(CAS-No.) 57-55-6	Proprietary
Trisodium citrate dihydrate	(CAS-No.) 6132-04-3	Proprietary
Proxel GXL	Mixture	Proprietary
Subtilisins (proteolytic enzymes)	(CAS-No.) 9014-01-1	Proprietary
Amylase, .alpha.-	(CAS-No.) 9000-90-2	Proprietary
Cellulase	(CAS-No.) 9012-54-8	Proprietary
Lipase, triacylglycerol	(CAS-No.) 9001-62-1	Proprietary
Kathon CG/ICP	Mixture	Proprietary
Viable bacteria cultures	None	Proprietary
Fragrance	Mixture	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.

First-aid measures after skin contact : In case of contact, wash area with soap and water, apply a topical antiseptic agent.

First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

First-aid measures after ingestion : Give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

Sensor Cleaner

Safety Data Sheet

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: None under normal use.
Symptoms/injuries after skin contact	: Prolonged or repeated exposure may cause irritation. Bacterial infection may occur through open wounds or broken skin.
Symptoms/injuries after eye contact	: May cause redness and irritation.
Symptoms/injuries after ingestion	: May cause nausea, vomiting and diarrhea if ingested.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: None known.
Explosion hazard	: None known.

5.3. Advice for firefighters

Protection during firefighting	: Firefighters should wear full protective gear.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: If possible, stop flow of product.
Methods for cleaning up	: Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid eye and skin exposure. Wash thoroughly after handling. Keep out of reach of children.
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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a cool, dry place. Do not freeze. Keep container tightly closed when not in use.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Propanediol (57-55-6)			
AIHA	WEEL TWA		10 mg/m ³
Subtilisins (proteolytic enzymes) (9014-01-1)			
ACGIH	ACGIH OEL Ceiling		0.00006 mg/m ³
NIOSH	NIOSH REL (STEL)		0.00006 mg/m ³

8.2. Exposure controls

Appropriate engineering controls	: None required under normal product handling conditions.
Hand protection	: Wear impervious gloves to minimize skin contact.
Eye protection	: Use safety glasses if splashing is likely.
Skin and body protection	: Wear suitable working clothes.

Sensor Cleaner

Safety Data Sheet

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
 Appearance : Translucent.
 Color : None
 Odor : Fragrant
 Odor threshold : No data available
 pH : No data available
 Melting point : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Relative evaporation rate (butyl acetate=1) : No data available
 Flammability (solid, gas) : No data available
 Vapor pressure : No data available
 Relative vapor density at 20 °C : No data available
 Relative density : No data available
 Solubility : Miscible with water.
 Partition coefficient n-octanol/water (Log Pow) : No data available
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 Explosion limits : No data available
 Explosive properties : No data available
 Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Water (7732-18-5)

LD50 oral rat > 90 ml/kg

Alcohols, C9-11, ethoxylated (68439-46-3)

LD50 oral rat 1400 mg/kg

Sensor Cleaner

Safety Data Sheet

Alcohols, C9-11, ethoxylated (68439-46-3)	
ATE US (oral)	1378 mg/kg
1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
ATE US (oral)	20000 mg/kg body weight
ATE US (dermal)	20800 mg/kg body weight
Subtilisins (proteolytic enzymes) (9014-01-1)	
LD50 oral rat	3700 mg/kg
ATE US (oral)	500 mg/kg body weight
Amylase, alpha.- (9000-90-2)	
LD50 oral rat	> 7500 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

1,2-Propanediol (57-55-6)	
LC50 - Fish [1]	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish [2]	41 – 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

1,2-Propanediol (57-55-6)	
BCF - Fish [1]	< 1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

in accordance with DOT
not applicable

Sensor Cleaner

Safety Data Sheet

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Alcohols, C9-11; ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
1,2-Propanediol (57-55-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subtilisins (proteolytic enzymes) (9014-01-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Amylase, alpha- (9000-90-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Cellulase (9012-54-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Lipase, triacylglycerol (9001-62-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. US State regulations

1,2-Propanediol (57-55-6)	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Tank Cleaner

Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : Tank Cleaner

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Tank Maintenance

1.3. Details of the supplier of the safety data sheet

Unique Manufacturing and Marketing
5752 Lamar St.
Arvada, CO 80002

1.4. Emergency telephone number

Emergency number : 720-798-6122

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Water	(CAS-No.) 7732-18-5	> 85
Alcohols, C9-11, ethoxylated	(CAS-No.) 68439-46-3	Proprietary
1,2-Propanediol	(CAS-No.) 57-55-6	Proprietary
Trisodium citrate dihydrate	(CAS-No.) 6132-04-3	Proprietary
Proxel GXL	Mixture	Proprietary
Subtilisins (proteolytic enzymes)	(CAS-No.) 9014-01-1	Proprietary
Amylase, .alpha.-	(CAS-No.) 9000-90-2	Proprietary
Cellulase	(CAS-No.) 9012-54-8	Proprietary
Lipase, triacylglycerol	(CAS-No.) 9001-62-1	Proprietary
Kathon CG/ICP	Mixture	Proprietary
Viable bacteria cultures	None	Proprietary
Fragrance	Mixture	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.

First-aid measures after skin contact : In case of contact, wash area with soap and water, apply a topical antiseptic agent.

First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

First-aid measures after ingestion : Give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

Tank Cleaner

Safety Data Sheet

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : Prolonged or repeated exposure may cause irritation. Bacterial infection may occur through open wounds or broken skin.
 Symptoms/injuries after eye contact : May cause redness and irritation.
 Symptoms/injuries after ingestion : May cause nausea, vomiting and diarrhea if ingested.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
 Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
 Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
 No additional information available

6.1.2. For emergency responders
 No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.
 Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid eye and skin exposure. Wash thoroughly after handling. Keep out of reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry place. Do not freeze. Keep container tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Propanediol (57-55-6)		
AIHA	WEEL TWA	10 mg/m ³
Subtilisins (proteolytic enzymes) (9014-01-1)		
ACGIH	ACGIH OEL Ceiling	0.00006 mg/m ³
NIOSH	NIOSH REL (STEL)	0.00006 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.
 Hand protection : Wear impervious gloves to minimize skin contact.
 Eye protection : Use safety glasses if splashing is likely.
 Skin and body protection : Wear suitable working clothes.

Tank Cleaner

Safety Data Sheet

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state : Liquid
 Appearance : Translucent.
 Color : None
 Odor : Fragrant
 Odor threshold : No data available
 pH : No data available
 Melting point : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Relative evaporation rate (butyl acetate=1) : No data available
 Flammability (solid, gas) : No data available
 Vapor pressure : No data available
 Relative vapor density at 20 °C : No data available
 Relative density : No data available
 Solubility : Miscible with water.
 Partition coefficient n-octanol/water (Log Pow) : No data available
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 Explosion limits : No data available
 Explosive properties : No data available
 Oxidizing properties : No data available

9.2: Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Water (7732-18-5)

LD50 oral rat : > 90 ml/kg

Alcohols, C9-11, ethoxylated (68439-46-3)

LD50 oral rat : 1400 mg/kg

Tank Cleaner

Safety Data Sheet

Alcohols, C9-11, ethoxylated (68439-46-3)	
ATE US (oral)	1378 mg/kg
1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
ATE US (oral)	20000 mg/kg body weight
ATE US (dermal)	20800 mg/kg body weight
Subtilisins (proteolytic enzymes) (9014-01-1)	
LD50 oral rat	3700 mg/kg
ATE US (oral)	500 mg/kg body weight
Amylase, alpha- (9000-90-2)	
LD50 oral rat	> 7500 mg/kg

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitization : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified
 Reproductive toxicity : Not classified
 STOT-single exposure : Not classified
 STOT-repeated exposure : Not classified
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

1,2-Propanediol (57-55-6)	
LC50 - Fish [1]	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish [2]	41 – 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

1,2-Propanediol (57-55-6)	
BCF - Fish [1]	< 1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

in accordance with DOT

not applicable

Tank Cleaner

Safety Data Sheet

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
1,2-Propanediol (57-55-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subtilisins (proteolytic enzymes) (9014-01-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Amylase, alpha- (9000-90-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Cellulase (9012-54-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Lipase, triacylglycerol (9001-62-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. US State regulations

1,2-Propanediol (57-55-6)	
U.S. - Minnesota - Hazardous Substance List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

RV Toilet Cleaner

Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : RV Toilet Cleaner
 Other means of identification : RV Toilet Bowl Cleaner

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Cleaning product

1.3. Details of the supplier of the safety data sheet

Unique Manufacturing and Marketing
 5752 Lamar St.
 Arvada, CO 80002

1.4. Emergency telephone number

Emergency number : 800-476-1608

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)
 Not classified

2.2. Label elements

GHS-US labeling
 No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	Trade Secret	Not classified
Proprietary Component 1	Trade Secret	Trade Secret	Not classified
Proprietary Component 2	(CAS No) Trade Secret	Trade Secret	Not classified
Proprietary Component 3	(CAS No) Trade Secret	Trade Secret	Not classified
Proprietary Component 4	(CAS No) Trade Secret	Trade Secret	Not classified
Proprietary Component 5	Trade Secret	Trade Secret	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.
 First-aid measures after skin contact : Wash with plenty of soap and water.
 First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
 First-aid measures after ingestion : Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use.
 Symptoms/injuries after skin contact : Frequent or prolonged contact may irritate the skin.
 Symptoms/injuries after eye contact : May cause slight irritation.

RV Toilet Cleaner

Safety Data Sheet

Symptoms/injuries after ingestion : May be harmful if swallowed.

3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.

Methods for cleaning up : Confine spill and soak up with absorbent. Place in an approved container and dispose in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Water (7732-18-5)

Not applicable

Non Hazardous Ingredients

Not applicable

Proprietary Component 2 (Trade Secret)

Not applicable

Proprietary Component 3 (Trade Secret)

Not applicable

Proprietary Component 4 (Trade Secret)

Not applicable

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.

RV Toilet Cleaner

Safety Data Sheet

Hand protection	: Wear impervious gloves to minimize skin contact.
Eye protection	: None required under normal product handling conditions.
Skin and body protection	: Wear suitable working clothes.
Respiratory protection	: None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Blue
Odor	: Fragrant
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Miscible with water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

RV Toilet Cleaner

Safety Data Sheet

Water (7.732-18-5)	
D50 oral rat	> 90 ml/kg
Proprietary Component 3 (Trade Secret)	
LD50 oral rat	> 10000 mg/kg
Proprietary Component 4 (Trade Secret)	
LD50 oral rat	> 2000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Proprietary Component 3 (Trade Secret)	
LC50 fish 1	13500 - 14500 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
LC50 Daphnia 1	2564 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	> 6800 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Proprietary Component 4 (Trade Secret)	
LC50 fish 1	550 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Proprietary Component 4 (Trade Secret)	
Log Pow	6.02 - 7.81

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available
Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

RV Toilet Cleaner

Safety Data Sheet

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Proprietary Component 2 (Trade Secret)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Proprietary Component 3 (Trade Secret)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Proprietary Component 4 (Trade Secret)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

Proprietary Component 3 (Trade Secret)
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as vouching any specific property of the product

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
 SDS ID: 50147
 Issue date: 8/18/2020 Revision date: 9/26/2023 Supersedes: 12/16/2020 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : AQUAMAX SPRING SHOWERS LIQUID
 Product code : 96772-TC

1.2. Recommended use and restrictions on use

Recommended use : Holding tank treatment for RV and portable waste holding tanks

1.3. Supplier

Manufacturer
 Thetford LLC
 7101 Jackson Road
 Ann Arbor, MI 48103
 USA
 T (734) 769-6000
sds@thetford.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
USA	CHEMTREC - 24/7		(800) 424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
 Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : H318 - Causes serious eye damage
 Precautionary statements (GHS US) : P280 - Wear eye protection.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a POISON CENTER.

2.3. Other hazards which do not result in classification

No additional information available

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mixture of the following ingredients with non hazardous additions.

Name	Product identifier	%	GHS US classification
Ethoxylated alcohols	CAS-No.: 34398-01-1	1 – 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Sodium tetradecyl sulfate	CAS-No.: 68585-47-7	0.1 – 5	Eye Dam. 1, H318 Skin Irrit. 2, H315

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Gently wash with plenty of soap and water.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion : Do not induce vomiting. Drink plenty of water. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects after skin contact : May cause moderate irritation.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1: Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Wear suitable protective clothing. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. No flames, no sparks. Eliminate all sources of ignition. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Protective gloves. Safety glasses. For further information refer to section 8: "Exposure controls/personal protection".

6.2: Environmental precautions

Avoid release to the environment.

6.3: Methods and material for containment and cleaning up

Methods for cleaning up : Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed containers for disposal. Mop the are with plenty of cold, clean water. Dispose of in accordance with federal, state, and local regulations.

6.4: Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1: Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Wear personal protective equipment. Wash thoroughly after handling. Keep away from sources of ignition - No smoking. Spilled material may be slippery.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2: Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from ignition sources. Do not freeze.
Incompatible products : Strong bases. Strong acids.
Storage temperature : > 0 - < 38 °C (>32 - <100°F)

SECTION 8: Exposure controls/personal protection

8.1: Control parameters

AQUAMAX SPRING SHOWERS LIQUID

No additional information available

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium tetradecyl sulfate (68585-47-7)

No additional information available

Ethoxylated alcohols (34398-01-1)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain adequate ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Blue
Odor	: Floral
Odor threshold	: No data available
pH	: 7 – 9
Melting point	: Not applicable
Freezing point	: 0 °C (32°F)
Boiling point	: 97 °C (270°F)
Flash point	: > 93 °C (>200°F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.995 – 1.005 g/ml
Solubility	: In water, material soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 550 – 700 cP
Explosion limits	: No data available
Explosive properties	: No data available

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Sodium tetradecyl sulfate (68585-47-7)

LD50 oral rat : > 2000 mg/kg Source: IUCLID, TOMES; LOLI;

Ethoxylated alcohols (34398-01-1)

ATE US (oral) : 500 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 7 – 9

Serious eye damage/irritation : Causes serious eye damage.
pH: 7 – 9

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

AQUAMAX SPRING SHOWERS LIQUID

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after skin contact : May cause moderate irritation.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

AQUAMAX SPRING SHOWERS LIQUID

Persistence and degradability : Not established.

12.3. Bioaccumulative potential

AQUAMAX SPRING SHOWERS LIQUID

Bioaccumulative potential : Not established.

Sodium tetradecyl sulfate (68585-47-7)

Partition coefficient n-octanol/water (Log Pow) : 2.18 Source: EPISUITE

12.4. Mobility in soil

Sodium tetradecyl sulfate (68585-47-7)

Mobility in soil : 196.1

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with existing federal, state and local regulations. Empty containers should be rinsed and taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated

Packing group (TDG) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

AQUAMAX SPRING SHOWERS LIQUID

SARA Section 311/312 Hazard Classes | Health hazard - Serious eye damage or eye irritation

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Sodium tetradecyl sulfate	68585-47-7	Present	Active	
Ethoxylated alcohols	34398-01-1	Present	Inactive	N;P;XU

15.2. International regulations

No additional information available

AQUAMAX SPRING SHOWERS LIQUID

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.3 US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 9/26/2023

Other information : None.

Full text of H-phrases	
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
 SDS ID: 50143
 Issue date: 8/18/2020 Revision date: 9/26/2023 Supersedes: 12/17/2020 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : AQUAMAX TOSS-INS - DRY SPRING SHOWERS
 Product code : 96768-TC

1.2. Recommended use and restrictions on use

Recommended use : Holding tank treatment for RV and portable waste holding tanks

1.3. Supplier

Theftford LLC
 7101 Jackson Road
 Ann Arbor, MI 48103
 USA
 T (734) 769-6000
sds@thetford.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
USA	CHEMTREC - 247		(800) 424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
 Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Warning
 Hazard statements (GHS US) : H319 - Causes serious eye irritation
 Precautionary statements (GHS US) : P280 - Wear eye protection.
 P264 - Wash hands thoroughly after handling.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mixture of the following ingredients with non hazardous additions.

Name	Product identifier	%	GHS US classification
CITRIC ACID	CAS-No.: 77-92-9	1 – 5	Eye Irrit. 2, H319
Sodium tetradecyl sulfate	CAS-No.: 68585-47-7	0.1 – 5	Eye Dam. 1, H318 Skin Irrit. 2, H315

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Gently wash with plenty of soap and water.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion : Do NOT induce vomiting. Drink plenty of water. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : None under normal use.
Symptoms/effects after skin contact : May cause moderate irritation.
Symptoms/effects after eye contact : May cause eye irritation.
Symptoms/effects after ingestion : May elevate blood pressure.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Wear suitable protective clothing. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : No flames, no sparks. Eliminate all sources of ignition.

6.1.2. For emergency responders

Protective equipment : Safety glasses. Protective gloves.

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Eliminate all sources of ignition. Use spark proof tools. Minimize dusting and prevent distribution of airborne dust. Avoid inhalation of dust. Sweep up spills. Place in closed containers for disposal. Mop area with clean water.

Other information : Dispose of in accordance with federal, state, and local regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Wash thoroughly after handling. Keep away from sources of ignition - No smoking. Avoid dust formation. Do not breathe dust.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from ignition sources. Keep container tightly closed and dry. Store in low humidity.

Incompatible products : Strong bases. Strong acids.

Storage temperature : < 38 °C (<100°F)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

No additional information available

CITRIC ACID (77-92-9)

No additional information available

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium tetradecyl sulfate (68585-47-7)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain adequate ventilation.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular solid.
Color	: Blue
Odor	: Floral
Odor threshold	: No data available
pH	: 3 - 5
pH solution concentration	: 10 % 3 - 5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: ≥
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Water: 94 %
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Bulk density : 1017 - 1147 kg/m³

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

CITRIC ACID (77-92-9)	
LD50 oral rat	3000 mg/kg Source: OECD Screening Information Data Set
LD50 oral	5400 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other, 95% CL: 4500 - 6400
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal	> 2000 mg/kg body weight

Sodium tetradecyl sulfate (68585-47-7)

LD50 oral rat : > 2000 mg/kg Source: IUCLID, TOMES; LOLI;

Skin corrosion/irritation : Not classified
pH: 3 – 5
Serious eye damage/irritation : Causes serious eye irritation.
pH: 3 – 5
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

CITRIC ACID (77-92-9)	
LOAEL (oral, rat, 90 days)	8000 mg/kg body weight Animal: rat

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

CITRIC ACID (77-92-9)	
NOAEL (oral,rat,90 days)	4000 mg/kg body weight Animal: rat
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal use.
Symptoms/effects after skin contact	: May cause moderate irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May elevate blood pressure.

SECTION 12: Ecological information

12.1. Toxicity

CITRIC ACID (77-92-9)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	85 mg/l waterflea

12.2. Persistence and degradability

AQUAMAX TOSS-INS - DRY SPRING SHOWERS	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

AQUAMAX TOSS-INS - DRY SPRING SHOWERS	
Bioaccumulative potential	Not established.
CITRIC ACID (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.72
Sodium tetradecyl sulfate (68585-47-7)	
Partition coefficient n-octanol/water (Log Pow)	2.18 Source: EPISUITE

12.4. Mobility in soil

Sodium tetradecyl sulfate (68585-47-7)	
Mobility in soil	196.1

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with existing federal, state and local regulations.

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 15: Regulatory information

15.1 US Federal regulations

AQUAMAX TOSS-INS - DRY SPRING SHOWERS

SARA Section 311/312 Hazard Classes	Health hazard - Serious eye damage or eye irritation
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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
CITRIC ACID	77-92-9	Present	Active	
Sodium tetradecyl sulfate	68585-47-7	Present	Active	

15.2 International regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 9/26/2023

Other information : None.

Full text of H-phrases

H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

Safety Data Sheet (SDS). USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
 SDS ID: 50149
 Issue date: 8/18/2020 Revision date: 9/26/2023 Supersedes: 12/17/2020 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : AQUAMAX TOSS-INS - DRY SUMMER CYPRESS
 Product code : 96767-TC

1.2. Recommended use and restrictions on use

Recommended use : Holding tank treatment for RV and portable waste holding tanks

1.3. Supplier

Manufacturer
 Thetford LLC
 7101 Jackson Road
 Ann Arbor, MI 48103
 USA
 T (734) 769-6000
sds@thetford.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
USA	CHEMTREC - 24/7		(800) 424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
 Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
 Hazard statements (GHS US) : H319 - Causes serious eye irritation
 Precautionary statements (GHS US) : P280 - Wear eye protection.
 P264 - Wash hands thoroughly after handling.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mixture of the following ingredients with non hazardous additions.

Name	Product identifier	%	GHS US classification
CITRIC ACID	CAS-No.: 77-92-9	1 – 5	Eye Irrit. 2, H319
Sodium tetradecyl sulfate	CAS-No.: 68585-47-7	0.1 – 5	Eye Dam. 1, H318 Skin Irrit. 2, H315

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Gently wash with plenty of soap and water.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Do NOT induce vomiting. Drink plenty of water. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : None under normal use.
Symptoms/effects after skin contact : May cause moderate irritation.
Symptoms/effects after eye contact : Causes eye irritation.
Symptoms/effects after ingestion : May elevate blood pressure.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin and eyes. Wear suitable protective clothing. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : No flames, no sparks. Eliminate all sources of ignition.

6.1.2. For emergency responders

- Protective equipment : Safety glasses. Protective gloves.

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Eliminate all sources of ignition. Use spark proof tools. Minimize dusting and prevent distribution of airborne dust. Avoid inhalation of dust. Sweep up spills. Place in closed containers for disposal. Mop area with clean water. Dispose of in accordance with federal, state, and local regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Wash thoroughly after handling. Avoid dust formation. Keep away from sources of ignition - No smoking.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep away from ignition sources. Keep container tightly closed and dry. Store in low humidity.
- Incompatible products : Strong bases. Strong acids.
- Storage temperature : < 38 °C (<100°F)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

No additional information available

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

CITRIC ACID (77-92-9)

No additional information available

Sodium tetradecyl sulfate (68585-47-7)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain adequate ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular solid.
Color	: Green
Odor	: pine
Odor threshold	: No data available
pH	: 3 – 5
pH solution	: 10 %
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: >
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Water: 96 %
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Explosive properties : No data available
Oxidizing properties : No data available
Dust deflagration index : < bar·m/s

9.2. Other information

Bulk density : 1017 – 1147 kg/m³
Dust deflagration index : < bar·m/s

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

CITRIC ACID (77-92-9)	
LD50 oral rat	3000 mg/kg Source: OECD Screening Information Data Set
LD50 oral	5400 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 4500 - 6400
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal	> 2000 mg/kg body weight
Sodium tetradecyl sulfate (68585-47-7)	
LD50 oral rat	> 2000 mg/kg Source: IUCLID, TOMES; LOLI;

Skin corrosion/irritation : Not classified
pH: 3 – 5
Serious eye damage/irritation : Causes serious eye irritation.
pH: 3 – 5
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

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Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

CITRIC ACID (77-92-9)	
LOAEL (oral, rat, 90 days)	8000 mg/kg body weight Animal: rat
NOAEL (oral, rat, 90 days)	4000 mg/kg body weight Animal: rat

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : None under normal use.
Symptoms/effects after skin contact : May cause moderate irritation.
Symptoms/effects after eye contact : Causes eye irritation.
Symptoms/effects after ingestion : May elevate blood pressure.

SECTION 12: Ecological information

12.1: Toxicity

CITRIC ACID (77-92-9)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	85 mg/l waterflea

12.2: Persistence and degradability

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS	
Persistence and degradability	Not established.

12.3: Bioaccumulative potential

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS	
Bioaccumulative potential	Not established.

CITRIC ACID (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.72

Sodium tetradecyl sulfate (68585-47-7)	
Partition coefficient n-octanol/water (Log Pow)	2.18 Source: EPISUITE

12.4: Mobility in soil

Sodium tetradecyl sulfate (68585-47-7)	
Mobility in soil	196.1

12.5: Other adverse effects

No additional information available

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with existing federal, state and local regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

IATA
Not regulated

14.7: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1: US Federal regulations

AQUAMAX TOSS-INS - DRY SUMMER CYPRESS

SARA Section 311/312 Hazard Classes	Health hazard - Serious eye damage or eye irritation
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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
CITRIC ACID	77-92-9	Present	Active	
Sodium tetradecyl sulfate	68585-47-7	Present	Active	

15.2: International regulations

No additional information available

15.3: US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date	: 9/26/2023
Other information	: None.

Full text of H-phrases	
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
 SDS ID: 50140
 Issue date: 11/7/2017 Revision date: 9/26/2023 Supersedes: 2/12/2018 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : TANK BLASTER HOLDING TANK CLEANER
 Product code : 96529-TC

1.2. Recommended use and restrictions on use

Recommended use : Holding tank cleaner

1.3. Supplier

Manufacturer
 Thetford LLC
 7101 Jackson Road
 Ann Arbor, MI 48103
 USA
 T (734) 769-6000
sds@thetford.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
USA	CHEMTREC - 24/7		(800) 424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
 Respiratory sensitization, Category 1 H334 May cause an allergy or asthma symptoms or breathing difficulties if inhaled

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H318 - Causes serious eye damage
 H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (GHS US)

: P261 - Avoid breathing dust.
 P280 - Wear eye protection.
 P284 - [In case of inadequate ventilation] wear respiratory protection.
 P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 P342+P311 - If experiencing respiratory symptoms: Call a doctor.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

TANK BLASTER HOLDING TANK CLEANER

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contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER.
P501 - Dispose of contents/container to in accordance with local regulation..

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mixture of the following ingredients with non hazardous additions:

Name	Product identifier	%	GHS US classification
CITRIC ACID	CAS-No.: 77-92-9	10 – 20	Eye Irrit. 2, H319
Ethoxylated alcohols	CAS-No.: 68439-46-3	1 – 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Sodium tetradecyl sulfate	CAS-No.: 68585-47-7	1 – 5	Eye Dam. 1, H318 Skin Irrit. 2, H315
CELLULASE	CAS-No.: 9012-54-8	0.1 – 1	Resp. Sens. 1, H334

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

First-aid measures after skin contact : Gently wash with plenty of soap and water.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Do NOT induce vomiting. Drink plenty of water. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : None under normal conditions.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May elevate blood pressure.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

TANK BLASTER HOLDING TANK CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Wear suitable protective clothing. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Do not breathe dust. No flames, no sparks. Eliminate all sources of ignition.

6.1.2. For emergency responders

Protective equipment : Safety glasses. Protective gloves.

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Eliminate all sources of ignition. Use spark proof tools. Minimize dusting and prevent distribution of airborne dust. Avoid inhalation of dust. Sweep up spills. Place in closed containers for disposal. Mop area with clean water. Dispose of in accordance with federal, state, and local regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Keep away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container. Keep away from ignition sources.

Incompatible products : Strong bases. Strong acids.

Storage temperature : < 38 °C below 100°F and 75% humidity

TANK BLASTER HOLDING TANK CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TANK BLASTER HOLDING TANK CLEANER

No additional information available

CELLULASE (9012-54-8)

No additional information available

Ethoxylated alcohols (68439-46-3)

No additional information available

CITRIC ACID (77-92-9)

No additional information available

Sodium tetradecyl sulfate (68585-47-7)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain adequate ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular solid.
Color	: white
Odor	: cherry
Odor threshold	: No data available
pH	: 7 – 9
pH solution concentration	: 10 %
Melting point	: No data available
Freezing point	: No data available

TANK BLASTER HOLDING TANK CLEANER

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Material highly soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Bulk density : 961 – 1041 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Product releases carbon dioxide with the addition of water.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures. Water, humidity.

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

CELLULASE (9012-54-8)

LD50 oral rat	> 2960 mg/kg body weight Animal: rat, Guideline: other:
LD50 oral	> 2000 mg/kg body weight

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Ethoxylated alcohols (68439-46-3)	
ATE US (oral)	500 mg/kg body weight
CITRIC ACID (77-92-9)	
LD50 oral rat	3000 mg/kg Source: OECD Screening Information Data Set
LD50 oral	5400 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 4500 - 6400
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal	> 2000 mg/kg body weight
Sodium tetradecyl sulfate (68585-47-7)	
LD50 oral rat	> 2000 mg/kg Source: IUCLID, TOMES; LOLI;

Skin corrosion/irritation : Not classified
pH: 7 – 9

Serious eye damage/irritation : Causes serious eye damage.
pH: 7 – 9

Respiratory or skin sensitization : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

CITRIC ACID (77-92-9)	
LOAEL (oral, rat, 90 days)	8000 mg/kg body weight Animal: rat
NOAEL (oral, rat, 90 days)	4000 mg/kg body weight Animal: rat

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : None under normal conditions.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May elevate blood pressure.

SECTION 12: Ecological information

12.1. Toxicity

CELLULASE (9012-54-8)	
LC50 - Fish [1]	> 110.1 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 110.1 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 110.1 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
CITRIC ACID (77-92-9)	
LC50 - Fish [1]	> 100 mg/l

TANK BLASTER HOLDING TANK CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

CITRIC ACID (77-92-9)	
EC50 - Other aquatic organisms [1]	85 mg/l waterflea

12.2. Persistence and degradability

TANK BLASTER HOLDING TANK CLEANER	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

TANK BLASTER HOLDING TANK CLEANER	
Bioaccumulative potential	Not established.

CELLULASE (9012-54-8)	
Partition coefficient n-octanol/water (Log Pow)	-1.3 Source: ECHA

CITRIC ACID (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.72

Sodium tetradecyl sulfate (68585-47-7)	
Partition coefficient n-octanol/water (Log Pow)	2.18 Source: EPISUITE

12.4. Mobility in soil

Sodium tetradecyl sulfate (68585-47-7)	
Mobility in soil	196.1

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with existing federal, state and local regulations.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

TANK BLASTER HOLDING TANK CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated

Packing group (TDG) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

TANK BLASTER HOLDING TANK CLEANER

SARA Section 311/312 Hazard Classes	Health hazard - Respiratory or skin sensitization Health hazard - Serious eye damage or eye irritation
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Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

TANK BLASTER HOLDING TANK CLEANER

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	CAS-No.	Listing	Commercial status	Flags
CELLULASE	9012-54-8	Present	Active	XU
Ethoxylated alcohols	68439-46-3	Present	Active	XU
CITRIC ACID	77-92-9	Present	Active	
Sodium tetradecyl sulfate	68585-47-7	Present	Active	

15.2. International regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 9/26/2023

Other information : None.

Full text of H-phrases	
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled

Safety Data Sheet (SDS). USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SAFETY DATA SHEET

1. Identification

Product Identifier Gel Gloss
Other means of Identification GG1, GG8, GG16, GG64, GG128
Recommended use Surface gloss.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor Information
Manufacturer/Supplier TR Industries a Division of Granitize Products Inc.
Address 11022 Vulcan Street
 South Gate, CA 90280-0893 United States
Telephone: (562) 923-5438
Emergency CHEMTREC: (800) 424-9300
 CHEMTREC International: 00 1-703-527-3887

2. Hazard(s) identification

Physical hazards Flammable Liquids Category 3
Health Hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 1
 Sensitization, skin Category 1
 Aspiration hazard Category 1
Environmental hazards Hazardous to the aquatic environment, long-term hazard Category 2
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Collect spillage.

Storage Store in a well-ventilated place. Keep cool. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Water	7732-18-5	84
D-Limonene	5989-27-5	3
C12-C14 isoalkanes	68551-19-9	6
Oleic acid	112-80-1	1
Quartz	14808-60-7	5
Morpholine	110-91-8	1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed Diarrhea. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonia. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General Information Take off all contaminated clothing immediately. If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Thermal decomposition may produce CO, CO₂, oxides of nitrogen and other potentially toxic gases.

Special protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions Cool containers exposed to heat with water spray and remove container, if no risk is involved.

General fire hazards Flammable liquid and vapor. Heat may cause the containers to explode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Large Spills: Use water spray to reduce vapors or divert vapor cloud drift. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat and sources of ignition. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Refrigeration recommended. Keep out of the reach of children. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Morpholine (CAS 110-91-8)	PEL	70 mg/m3 20 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3 0.1 mg/m3 2.4 mppcf	Total dust. Respirable. Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Morpholine (CAS 110-91-8)	TWA	20 ppm	
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Morpholine (CAS 110-91-8)	STEL	105 mg/m3 30 ppm	
	TWA	70 mg/m3 20 ppm	
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
D-Limonene (CAS 5989-27-5)	TWA	165.5 mg/m3

US Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
		30 ppm
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Exposure guidelines		
US - California OELs: Skin designation	Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
US - Minnesota Haz Subs: Skin designation applies	Morpholine (CAS 110-91-8)	Skin designation applies.
US - Tennessee OELs: Skin designation	Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
US ACGIH Threshold Limit Values: Skin designation	Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
US. NIOSH: Pocket Guide to Chemical Hazards	Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)	Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
Appropriate engineering controls	Use explosion-proof ventilation equipment. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Provide eyewash station.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Wear approved chemical safety goggles. Wear face shield if there is risk of splashes.	
Skin protection		
Hand protection	Wear appropriate chemical resistant gloves.	
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.	
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	
9. Physical and chemical properties		
Appearance	Milky white liquid.	
Physical state	Liquid.	
Form	Liquid.	
Color	Milky white.	
Odor	Characteristic.	
Odor threshold	Not available.	
pH	Not available.	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	>35 °C	
Flash point	≥23 °C, ≤60 °C	
Evaporation rate	0.1 Estimated.	
Flammability (solid, gas)	Not available.	
Upper/lower flammability or explosive limits		
Flammability limit - lower (%)	Not available.	

Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	4.9 Estimated.
Relative density	< 1 Estimated.
Solubility(ies)	
Solubility (water)	Negligible in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other Information	
Percent volatile	

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases. Amines.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	Prolonged Inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics
 Diarrhea. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Morpholine (CAS 110-91-8)		
<i>Acute</i>		
<i>Dermal</i>		
LD50	Rabbit	500 mg/kg 500 mg/kg, 24 Hours 0.31 - 0.81 ml/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 8 hours
<i>Oral</i>		
LD50	Guinea pig	900 mg/kg

Components	Species	Test Results
	Rat	1050 mg/kg 1.05 g/kg
Oleic acid (CAS 112-80-1)		
Acute		
Oral		
LD50	Rat	74 g/kg
Polyalkyl siloxane (CAS 63148-62-9)		
Acute		
Dermal		
LD50	Rabbit	>= 5000 mg/kg
Oral		
LD50	Rat	>= 17000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not classified.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Due to the form of the product, exposure to the potentially carcinogenic components is not expected.

IARC Monographs. Overall Evaluation of Carcinogenicity

D-Limonene (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
Morpholine (CAS 110-91-8)	3 Not classifiable as to carcinogenicity to humans.
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.

NTP Report on Carcinogens

Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.
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OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	May be harmful if absorbed through skin.

12. Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow)	
Morpholine (CAS 110-91-8)	-0.86
Mobility in soil	The product is insoluble or slightly soluble in water.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal Instructions	Dispose in accordance with all applicable regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies.
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Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1268

UN proper shipping name Petroleum products, n.o.s. (D-Limonene; C12-C14 Isoalkanes)

Transport hazard class(es)

Class 3

Subsidiary risk -

Label(s) 3

Packing group III

Environmental hazards

Marine pollutant yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions 144, B1, IB3, T4, TP1, TP29

Packaging exceptions 150

Packaging non bulk 203

Packaging bulk 242

IATA

UN number UN1268

UN proper shipping name Petroleum products, n.o.s. (D-Limonene, C12-C14 Isoalkanes)

Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group III

Environmental hazards yes

ERG Code 3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1268

UN proper shipping name Petroleum products, n.o.s. (D-Limonene, C12-C14 isoalkanes)

Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant yes

EmS F-E, S-E

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Morpholine (CAS 110-91-8) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
 Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Morpholine (CAS 110-91-8)
 Quartz (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

D-Limonene (CAS 5989-27-5)
 Morpholine (CAS 110-91-8)
 Quartz (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Morpholine (CAS 110-91-8)
 Oleic acid (CAS 112-80-1)
 Quartz (CAS 14808-60-7)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)
 Quartz (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Country(s) or region Inventory name On Inventory (yes/no)*
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information, including date of preparation or last revision

Issue date 15-September-2014

Revision date -

Version # 01

NFPA ratings



List of abbreviations

LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.
EC50: Effective concentration, 50%.
STEL: Short term exposure limit.
TWA: Time weighted average.
DOT: Department of Transportation. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

References

RTECS
HSDB® - Hazardous Substances Data Bank
GESTIS Substance Database
C&L Inventory database.

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

MEDICAL EMERGENCY TELEPHONE NO.: 800.424.9300

PRODUCT CODE:	Pure Power Blue, Toilet Deodorant / Detergent.
PRODUCT NAME:	Liquid toilet deodorant.
EFFECTIVE DATE:	June 01, 2010

SECTION I. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Nonionic Surfactant CAS # 127087-87-0

There is a mixture of specially selected bacteria strains contained in this product – all are non-pathogenic to humans.

Other components consisting of between 3 & 8% by weight are considered a trade secret & under OSHA CFR 29 1910.1200(i) and are non-hazardous. Such components may be disclosed under emergency conditions to health professionals, if necessary.

Other Non-Hazardous Ingredients include: Fragrance, Dye..

SECTION II. PHYSICAL/CHEMICAL DATA:

BOILING POINT:	100 degrees F
VAPOR PRESSURE:	N/A
VAPOR DENSITY:	N/A.
SOL. IN WATER:	99%
BULK DENSITY:	Varies
FREEZING POINT:	N/A.
APPEARANCE:	Blue Liquid.
ODOR:	Pleasant Fragrance

SECTION III. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT:	N/A
FLAMMABLE LIMIT:	N/A
LFL:	N/A
UFL:	N/A

EXTINGUISHING MEDIA:

For surrounding fire, one may use foam, dry chemical, CO2 or water sprayer or fog.

FIRE AND EXPLOSION HAZARDS:

This product constitutes no significant fire hazard.

FIRE FIGHTING EQUIPMENT:

Use MSHA/NIOSH approved self-contained breathing & protective clothing. Cool exposed containers with water spray.
Avoid breathing vapors, fumes or smoke.

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

SECTION IV. FIRST AID AND REACTIVITY:

ACUTE:

Ingestion: May cause irritation and inflammation of mouth, throat and stomach. May cause stupor, nausea and vomiting leading to illness.

Inhalation: Irritating to nasal passages. May cause inflammation of lining of nose, throat and lungs.

Skin contact: May cause moderate injury (reddening and swelling).

Eye contact: May cause irritation.

Vapor may cause irritation, tearing and burning sensation.

EMERGENCY AND FIRST AID PROCEDURES:

Ingestion: Contact a physician immediately.

Inhalation: Remove patient from contaminated area

Eye Contact: Flush eyes with water for at least 15 minutes. Contact a physician immediately.

Skin contact: Remove contaminated clothing and wash contaminated skin with large amount of water. If irritation persists, contact a physician.

STABILITY: Stable

INCOMPATIBILITY: Strong alkali or caustic soda.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION OR BY- PRODUCTS: May form some oxides and ammoniac vapor.
If ingested consult a physician.

SECTION V. FIRE FIGHTING, ENVIRONMENTAL AND DISPOSAL INFORMATION:

SPILL AND WASTE DISPOSAL METHOD:

STEPS TO BE TAKEN IN CASE OF A SPILL: Sweep up and recover.

WASTE DISPOSAL INFORMATION: Dispose of in compliance with all Federal, State and local laws and regulations. Bury in an approved sanitary landfill.

PRECAUTION TO BE TAKEN IN HANDLING AND STORING: Store in cool and dry place. KEEP OUT OF REACH OF CHILDREN.

FIRE FIGHTING: Use normal protective clothing, NIOSH-approved protective gear and so on. This product normally poses no fire hazard.

SECTION VI: ACCIDENTAL RELEASE & HEALTH HAZARD DATA

SPILL AND WASTE DISPOSAL METHOD:

WASTE DISPOSAL INFORMATION: Dispose of in compliance with all Federal, State and local laws and regulations. Bury in an approved sanitary landfill.

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MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

SECTION VII. CONTROL MEASURES AND HANDLING:

RESPIRATORY PROTECTION:

OSHA approved respirators recommended.

VENTILATION:

Good general ventilation should be sufficient.

LOCAL EXHAUST: MECHANICAL: SPECIAL: OTHER: PROTECTIVE GLOVES: EYE PROTECTION: OTHER PROTECTIVE CLOTHING: WORK/HYGIENIC PRACTICES	Recommended. Not recommended as the sole means of controlling employee exposure. N/A. N/A. Solvent resistant rubber or plastic. Safety goggles or face shield. Solvent resistant apron or overall is recommended: Wash hands with soap after handling product. Do not swallow and avoid contact with eyes. KEEP OUT OF REACH OF CHILDREN.
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SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

The observance of reasonable caution and reasonable personal cleanliness should be practiced.

SECTION VIII. EXPOSURE & PERSONAL PROTECTION:

See section VII.

SECTION IX PHYSICAL AND CHEMICAL:

Appearance is a blue liquid. It comes in bottles and boxed appropriately for shipment.

SECTION X. STABILITY:

The product is stable.

SECTION XI. TOXICOLOGY:

There is no direct data on the product itself. However, review of data on components suggests it is safe when used according to use-recommended guidelines.

SECTION XII. ENVIRONMENTAL:

This product is to be used in a closed system in accordance with manufacturer's guidelines- when this is done the product poses no known risk to the environment.

SECTION XIII. DISPOSAL:

SPILL AND WASTE DISPOSAL METHOD:

WASTE DISPOSAL INFORMATION: Dispose of in compliance with all Federal, State and local laws and regulations. Bury in an approved sanitary landfill.

Store in cool and dry place. **KEEP OUT OF REACH OF CHILDREN.**

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

SECTION XV. REGULATORY

Materials comprising this product are TSCA registered. CERCLA; no RQ.

OSHA CFR 29 1910.1200(i).

PRECAUTION TO BE TAKEN IN HANDLING AND STORING: Store in cool and dry place. KEEP OUT OF REACH OF CHILDREN.

SECTION XVI. OTHER INFORMATION:

NOTICE:

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, OP Products makes no guarantee or warranty of any kind expressed or implied with respect to the information contained herein.

This supersedes any previous information.

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

MEDICAL EMERGENCY TELEPHONE NO.: 800.424.9300

PRODUCT CODE:	Pure Power Blue, Toilet Deodorant / Detergent.
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EFFECTIVE DATE:	June 01, 2010

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Nonionic Surfactant CAS # 127087-87-0

There is a mixture of specially selected bacteria strains contained in this product – all are non-pathogenic to humans.

Other components consisting of between 3 & 8% by weight are considered a trade secret & under OSHA CFR 29 1910.1200(i) and are non-hazardous. Such components may be disclosed under emergency conditions to health professionals, if necessary.

Other Non-Hazardous Ingredients include: Fragrance, Dye..

SECTION II. PHYSICAL/CHEMICAL DATA:

BOILING POINT:	100 degrees F
VAPOR PRESSURE:	N/A
VAPOR DENSITY:	N/A.
SOL. IN WATER:	99%
BULK DENSITY:	Varies
FREEZING POINT:	N/A.
APPEARANCE:	Blue Liquid.
ODOR:	Pleasant Fragrance

SECTION III. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT:	N/A
FLAMMABLE LIMIT:	N/A
LFL:	N/A
UFL:	N/A

EXTINGUISHING MEDIA:

For surrounding fire, one may use foam, dry chemical, CO2 or water sprayer or fog.

FIRE AND EXPLOSION HAZARDS:

This product constitutes no significant fire hazard.

FIRE FIGHTING EQUIPMENT:

Use MSHA/NIOSH approved self-contained breathing & protective clothing. Cool exposed containers with water spray. Avoid breathing vapors, fumes or smoke.

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Riverside, Ca. 92507

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ACUTE:

Ingestion: May cause irritation and inflammation of mouth, throat and stomach. May cause stupor, nausea and vomiting leading to illness.

Inhalation: Irritating to nasal passages. May cause inflammation of lining of nose, throat and lungs.

Skin contact: May cause moderate injury (reddening and swelling).

Eye contact: May cause irritation.

Vapor may cause irritation, tearing and burning sensation.

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Ingestion: Contact a physician immediately.

Inhalation: Remove patient from contaminated area

Eye Contact: Flush eyes with water for at least 15 minutes. Contact a physician immediately.

Skin contact: Remove contaminated clothing and wash contaminated skin with large amount of water. If irritation persists, contact a physician.

STABILITY: Stable

INCOMPATIBILITY: Strong alkali or caustic soda.

HAZARDOUS POLYMERIZATION: Will not occur.

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PRECAUTION TO BE TAKEN IN HANDLING AND STORING: Store in cool and dry place. KEEP OUT OF REACH OF CHILDREN.

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SPILL AND WASTE DISPOSAL METHOD:

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FIRE FIGHTING: Use normal protective clothing, NIOSH-approved protective gear and so on. This product normally poses no fire hazard.

MATERIAL SAFETY DATA SHEET

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Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

SECTION VII. CONTROL MEASURES AND HANDLING:

RESPIRATORY PROTECTION:

OSHA approved respirators recommended.

VENTILATION:

Good general ventilation should be sufficient.

LOCAL EXHAUST: MECHANICAL: SPECIAL: OTHER: PROTECTIVE GLOVES: EYE PROTECTION: OTHER PROTECTIVE CLOTHING: WORK/HYGIENIC PRACTICES	Recommended. Not recommended as the sole means of controlling employee exposure. N/A. N/A. Solvent resistant rubber or plastic. Safety goggles or face shield. Solvent resistant apron or overall is recommended: Wash hands with soap after handling product. Do not swallow and avoid contact with eyes. KEEP OUT OF REACH OF CHILDREN.
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SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

The observance of reasonable caution and reasonable personal cleanliness should be practiced.

SECTION VIII. EXPOSURE & PERSONAL PROTECTION:

See section VII.

SECTION IX PHYSICAL AND CHEMICAL:

Appearance is a blue liquid. It comes in bottles and boxed appropriately for shipment.

SECTION X. STABILITY:

The product is stable.

SECTION XI. TOXICOLOGY:

There is no direct data on the product itself. However, review of data on components suggests it is safe when used according to use-recommended guidelines.

SECTION XII. ENVIRONMENTAL:

This product is to be used in a closed system in accordance with manufacturer's guidelines- when this is done the product poses no known risk to the environment.

SECTION XIII. DISPOSAL:

Spill and Waste Disposal Method:

WASTE DISPOSAL INFORMATION: Dispose of in compliance with all Federal, State and local laws and regulations. Bury in an approved sanitary landfill.

Store in cool and dry place. **KEEP OUT OF REACH OF CHILDREN.**

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Company: OP Products Inc.
2111 Iowa Avenue, Suite G
Riverside, Ca. 92507

SECTION XV. REGULATORY

Materials comprising this product are TSCA registered. CERCLA; no RQ.

OSHA CFR 29 1910.1200(i).

PRECAUTION TO BE TAKEN IN HANDLING AND STORING: Store in cool and dry place. KEEP OUT OF REACH OF CHILDREN.

SECTION XVI. OTHER INFORMATION:

NOTICE:

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, OP Products makes no guarantee or warranty of any kind expressed or implied with respect to the information contained herein.

This supersedes any previous information.

Material Data Safety Sheet

FORM NUMBER: 704

Section I Product Information/Preparation Information				
Identity: Aqua-Kem Toss Ins		Product Use: Holding tank deodorant		
Manufacturer's Name Theftford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road Ann Arbor, Michigan 48103		Telephone Number for Information (734) 769-6000		
		Date Prepared 10-Apr-03	Prepared By Janis M. Thomson	
Section II - Hazardous Ingredients/Identity Information				
Hazardous Components Paraformaldehyde	CAS # 30525-89-4	OSHA PEL 0.75 ppm as formaldehyde	ACGIH 0.3 ppm C*	Other Limits STEL 2 ppm
*Ceiling				
Section III - Hazards Identification and Toxicological Information				
Emergency Overview:				
Warning! Inhalation causes irritation of the eyes, nose and throat. Skin sensitizer.				
Route(s) of Entry:				
Inhalation: Produces irritation to upper respiratory tract & eyes. May cause sensitization of the respiratory system.				
Skin Contact: Can cause severe injury-reddening and swelling. Sensitizer.				
Eye contact: Causes irritation and tearing. Can cause severe burns.				
Ingestion: Causes severe irritation and inflammation of mouth, throat and stomach.				
Chronic effects:				
Carcinogenicity: Formaldehyde is listed as a carcinogen on IARC, NTP, OSHA, ACGIH. Carcinogenic potential is based on animal evidence. Human evidence shows no increased risk of cancer.				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic in whole animal systems. Mutagenic activity in bacterial & mammalian cell culture test symptoms.				
Sensitization to Material: Persons having preexisting diseases of the lungs, eyes or skin may have increased susceptibility to the hazards of excessive exposure. High inhalation exposure may cause bronchopneumonia and adema.				
Synergistic materials: None known.				
Toxicological Information: Formaldehyde		LD ₅₀ : 270 mg/kg (dermal, rabbit)	LC ₅₀ : 480 mg/kg (vapor, rat)	
Paraformaldehyde		LD ₅₀ : >2000 mg/kg (dermal, rabbit)	LC ₅₀ : 1070 mg/kg (dust, rat, 4 hours)	
Section IV - First Aid Procedures:				
Inhalation: Remove victim to fresh air. Get medical attention if problems persist.				
Ingestion: Induce vomiting by giving 2 glasses of water and sticking finger down throat. Get medical attention immediately.				
Skin: Flush contacted area with large amounts of water. Wash with soap and water. Wash contaminated clothing before reuse.				
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes. Get medical attention immediately.				
Section V - Fire and Explosion Hazard Data				
Flash Point (Method used)		Flammable Limits by Volume		LEL
140°F (60°C) (RTCC)		Formaldehyde		UEL
				73%
Extinguishing Media Water, dry chemical, carbon dioxide or alcohol foam		Hazardous Combustion Products Carbon monoxide and carbon dioxide		
Special Fire fighting Procedures None.		Auto-ignition Temperature 300°C		Sensitivity to Static Discharge Not available
Unusual Fire and Explosion Hazards None		Conditions of Flammability Not flammable		
Explosion Data None		Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment		
Respiratory Protection: Wear a vapor mask with organic vapor or formaldehyde cartridge for small spills. Use a self-contained breathing apparatus for uncontrolled releases.		
Engineering Controls: Maintain adequate ventilation to keep vapors below exposure limit.		
Protective Gloves: Rubber or neoprene gloves.	Eye Protection: Face shield with safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid unnecessary and prolonged contact. Avoid breathing vapors. Wash thoroughly after handling.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Ventilate area well - use a fan if available. Clean up small spills with water. Sweep up spilled material. Neutralize remaining odor with an ammonia, cold water mixture. Mop area with plenty of clean, cold water. Work for short periods of time (15 minute periods).		
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.		
Precautions to be Taken in Handling and Storing Do not store above 110° F (43°C).		
Other Precautions Do not get in eyes or on skin. Do not inhale vapors. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point NA	Specific Gravity (H2O = 1) NA	Physical State Solid
Vapor Pressure (mm Hg) 5 mm HgA @ 99°F (37°C)	Melting Point 120 - 170°C	Odor Threshold 0.05 - 1.0 ppm
Vapor Density (AIR = 1) 1.03	Evaporation Rate (Butyl Acetate = 1) Not applicable	Freezing Point Does not freeze
Solubility in Water 90%	pH 10% solution 9 - 10	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Blue granules with pungent odor		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong alkalis, inorganic acids, isocyanates, anhydrides, oxides		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide and carbon dioxide		
Conditions to Avoid Elevated temperatures		
Section XI - Shipping Information		
Shipping Instructions for Consumer Commodities: US transportation questions can be answered by Theford Corporation's Traffic Department. Consult TDG Regulations for Canadian shipping information.		

Material Safety Data Sheet

IDENTITY: GREY WATER ODOR CONTROL

FORM NUMBER: 1603

Section I			
Manufacturer's Name Thetford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC 24 hrs)		
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103	Date Prepared 21-Jan-98		
Section II - Hazardous Ingredients/Identity Information			
Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits
Glutaraldehyde (pentanedial) CAS # 111-30-8		0.05 ppm C	
C = Ceiling			
Section III - Physical/Chemical Characteristics			
Boiling Point Approximately 212°F	Specific Gravity (H2O = 1) 1.03		
Vapor Pressure (mm Hg) Unknown	Melting Point Not applicable		
Vapor Density (AIR = 1) 1	Evaporation Rate (Butyl Acetate = 1) Approximately water		
Solubility in Water 100%	pH 4 - 5		
Appearance and Odor Light purple liquid with light floral scent			
Section IV - Fire and Explosion Hazard Data			
Flash Point (Method used) > 200°F (TCC)	Flammable Limits Unknown	LEL N/A	UEL N/A
Extinguishing Media Water spray, carbon dioxide, dry chemical or foam			
Special Fire fighting Procedures Wear self-contained breathing apparatus			
Unusual Fire and Explosion Hazards None			
Section V - Reactivity Data			
Stability X Stable Unstable	Conditions to Avoid Alkaline material		
Incompatibility (Materials to Avoid) Acids and bases and oxidizers			
Hazardous Decomposition or Byproducts Burning may produce carbon monoxide and/or carbon dioxide			
Hazardous Polymerization May Occur X Will Not Occur	Conditions to Avoid None		

Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Irritant	Irritant	Toxic
Health Hazards (Acute and Chronic)			
Nausea and vomiting if swallowed. Eye contact may result in burns. Irritation of the skin. Sensitizer.			
May lead to skin rashes and skin allergies. May cause signs and symptoms of asthma attack in hyper-reactive individuals.			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No
Not mutagenic or teratogenic.			
Signs and Symptoms of Exposure:			
Irritation of the skin, eyes and respiratory system if in contact with liquid and/or vapors. Nausea and vomiting if swallowed.			
Medical Conditions Generally Aggravated by Exposure:			
Skin allergies.			
Emergency and First Aid Procedures:			
Flush contacted area with large volumes of water. Wash contaminated clothing before reuse. Irrigate eyes for a minimum of 15 minutes. Call a physician. If swallowed, do not induce vomiting.			
Call a physician immediately.			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
Small spills may be flushed with large volumes of water to a biological treatment system. Large spills should be contained and transferred to suitable containers. Neutralize remaining material with dilute ammonia solution.			
Waste Disposal Method			
Incineration or biological treatment in State/Federal approved facility.			
Precautions to be Taken in Handling and Storing			
Do not exceed 110° F.			
Other Precautions			
Do not get in eyes or on skin. Do not inhale vapors. Wash thoroughly after handling.			
Section VIII - Control Measures			
Respiratory Protection			
Air supplied mask if vapors are irritating to nose or eyes.			
Ventilation			
Local Exhaust	Maintain adequate ventilation	Special	Not necessary
Mechanical (General)	Not necessary	Other	Not applicable
Protective Gloves	Recommended	Eye Protection	Recommended
Other Protective Clothing or Equipment			
Eyewash station and safety shower			
Work/Hygienic Practices			
Avoid unnecessary and prolonged exposures			
Section IX - Shipping Information			
Any transportation questions can be answered by Thetford Corporation's Traffic Department.			

Material Safety Data Sheet

ENTITY: DRAIN VALVE LUBRICANT

FORM NUMBER: 1403

Section I			
Manufacturer's Name Thetford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103	Date Prepared 21-Jan-98		
Section II - Hazardous Ingredients/Identity Information			
Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits
Nonionic Surfactant		Not established	
Section III - Physical/Chemical Characteristics			
Boiling Point 212°F	Specific Gravity (H2O = 1) 1.006		
Vapor Pressure (mm Hg) Unknown	Melting Point Not applicable		
Vapor Density (AIR = 1) Unknown	Evaporation Rate (Butyl Acetate = 1) Unknown		
Solubility in Water 100%	pH 5 - 7		
Appearance and Odor Light red liquid			
Section IV - Fire and Explosion Hazard Data			
Flash Point (Method used) > 200°F (TCC)	Flammable Limits Unknown	LEL N/A	UEL N/A
Extinguishing Media Water spray, carbon dioxide, dry chemical or foam			
Special Fire fighting Procedures Self-contained breathing apparatus			
Unusual Fire and Explosion Hazards None			
Section V - Reactivity Data			
Stability X Stable Unstable	Conditions to Avoid None		
Incompatibility (Materials to Avoid) Strong oxidizing or reducing agents			
Hazardous Decomposition or Byproducts None			
Hazardous Polymerization May Occur X Will Not Occur	Conditions to Avoid None		

Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	No	No	Not toxic
Health Hazards (Acute and Chronic)			
Eye irritation.			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No
Signs and Symptoms of Exposure:			
Burning sensation if splashed in the eyes.			
Medical Conditions Generally Aggravated by Exposure:			
None known.			
Emergency and First Aid Procedures:			
For skin contact, wash thoroughly with large amounts of soap and water. Irrigate eyes for a minimum of 15 minutes. Call a physician.			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
Soak up with absorbent material. Flush remainder with large amounts of water.			
Waste Disposal Method			
Dispose of with liquid waste in accordance with local, state and federal regulations.			
Precautions to be Taken in Handling and Storing			
Do not store above 110°F.			
Other Precautions			
Avoid eye and skin contact. Avoid breathing vapor or mist, if generated.			
Section VIII - Control Measures			
Respiratory Protection			
Not required			
Ventilation			
Local Exhaust	Maintain adequate ventilation	Special	Not necessary
Mechanical (General)	Not necessary	Other	Not necessary
Protective Gloves	Recommended	Eye Protection.	Recommended
Other Protective Clothing or Equipment			
Eyewash station, safety shower. Protective clothing.			
Work/Hygienic Practices			
Avoid unnecessary and prolonged exposure. Wash thoroughly after handling.			
Section IX - Shipping Information			
Any transportation questions can be answered by Thetford Corporation's Traffic Department.			

Material Safety Data Sheet

FORM NUMBER: 50078

Section I Product Information/Preparation Information				
Identity: Tissue Digester		Product Use: Tissue digester for use in holding tanks		
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road Ann Arbor, Michigan 48103		Telephone Number for Information (734) 769-6000		
		Date Prepared 1-Feb-10	Prepared By Janis M. Thomson	
Section II - Hazardous Ingredients/Identity Information				
Hazardous Components	CAS #	OSHA PEL	ACGIH	Other Limits
Cellulase	9012-54-8			None established
Sodium Chloride	7647-14-5			None established
Citric Acid	77-92-9			None established
Section III - Hazards Identification and Toxicological Information				
Emergency Overview:				
Warning! Irritating to skin and eyes.				
Route(s) of Entry:				
Inhalation: Irritant by inhalation. Dust may cause allergic reaction.				
Skin Contact: Produces irritation.				
Eye contact: Causes irritation.				
Ingestion: Elevated blood pressure if ingested due to sodium chloride content.				
Chronic effects:				
Carcinogenicity: Not carcinogenic.				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material: Allergic reaction to those susceptible.				
Synergistic materials: None known.				
Toxicological Information: Calculated for mixture		LD ₅₀ : 2970 mg/kg	LC ₅₀ :	
		LD ₅₀ :	LC ₅₀ :	
Section IV - First Aid Procedures:				
Inhalation: If respiratory irritation develops, call a physician.				
Ingestion: Induce vomiting by giving 2 glasses of water and sticking finger down throat. Get medical attention immediately.				
Skin: Wash contacted area with soap and water. Wash clothing before reuse.				
Eyes: Irrigate eyes for a minimum of 15 minutes with large amounts of water. Get medical attention immediately.				
Section V - Fire and Explosion Hazard Data				
Flash Point (Method used) None	Flammable Limits by Volume N/A		LEL N/A	UEL N/A
Extinguishing Media Water, dry chemical, or carbon dioxide	Hazardous Combustion Products None			
Special Fire fighting Procedures None.	Auto-ignition Temperature Not available		Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None	Conditions of Flammability Not flammable			
Explosion Data None	Sensitivity to Mechanical Impact Not available			

Section VI - Personal Protective Equipment		
Respiratory Protection: Dust mask (NIOSH approved)		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber gloves.	Eye Protection: Safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid skin contact and inhalation of dust. Do not get in eyes. Wash thoroughly after handling.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Minimize dusting and prevent distribution of airborne dust. Sweep up and collect in suitable containers. Mop area with clean, clear water.		
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.		
Precautions to be Taken in Handling and Storing To prolong life, store in dry containers at 40°F (4°C) below 75% humidity.		
Other Precautions Do not get in eyes or on skin. Do not inhale dust. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point Not applicable.	Specific Gravity (H2O = 1) Not applicable.	Physical State Solid
Vapor Pressure (mm Hg) Not determined	Melting Point Not determined	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Not applicable	Freezing Point Does not freeze
Solubility in Water Complete if less than 36% solution	pH 10% solution 3.75 - 4.75	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Rose colored particles with yeasty odor		
Section IX - Reactivity Hazards		
Stability <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Hazardous Polymerization <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	
Incompatibility (Materials to Avoid) Concentrated acids such as sulfuric or nitric		
Hazardous Decomposition or Byproducts None		
Conditions to Avoid High humidity and elevated temperatures		
Section XI - Shipping Information		
Transportation Status: US DOT: Not Regulated Canadian TDG: Not Regulated	Proper Shipping Name: NA NA	Class: NA NA
For other modes of transportation, consult the individual regulations (IATA, IMDG) for shipping information.		

Material Safety Data Sheet

IDENTITY: LEVEL GAUGE CLEANER

FORM NUMBER: 4600

Section I			
Manufacturer's Name Thetford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103	Date Prepared 21-Jan-98		
Section II - Hazardous Ingredients/Identity Information			
Hazardous Components	OSHA PEL	ACGIH TLV	Other Limits
Sodium chloride CAS # 7647-15-4		Not established	
Cellulase		Not established	
Surfactant		Not established	
Section III - Physical/Chemical Characteristics			
Boiling Point	Specific Gravity (H2O = 1)		
Not applicable	Not applicable		
Vapor Pressure (mm Hg)	Melting Point		
Not applicable	Not available		
Vapor Density (AIR = 1)	Evaporation Rate (Butyl Acetate = 1)		
Not applicable	Not applicable		
Solubility in Water	pH of 10% Solution		
Complete if less than 36% solution	2 -4		
Appearance and Odor			
Light blue particles with fragrant odor			
Section IV - Fire and Explosion Hazard Data			
Flash Point (Method used)	Flammable Limits	LEL	UEL
None	None	N/A	N/A
Extinguishing Media			
Water, carbon dioxide, dry chemical			
Special Fire fighting Procedures			
Adequate precautions should be taken to avoid inhalation of dust			
Unusual Fire and Explosion Hazards			
None known			
Section V - Reactivity Data			
Stability	Conditions to Avoid		
<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	None		
Incompatibility (Materials to Avoid)			
Concentrated acids such as sulfuric or nitric			
Hazardous Decomposition or Byproducts			
None			
Hazardous Polymerization	Conditions to Avoid		
<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	None		

Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes- Irritant	Irritant	Toxic
Health Hazards (Acute and Chronic)			
Dust may cause skin or respiratory irritation or allergic reaction. Ingestion elevates blood pressure.			
Also an eye irritant.			
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No
Signs and Symptoms of Exposure:			
Irritation to skin and respiratory system if in contact with dust. Irritation of the eyes. Elevated blood pressure if ingested.			
Medical Conditions Generally Aggravated by Exposure:			
Elevated blood pressure if ingested. Allergic reaction to those susceptible.			
Emergency and First Aid Procedures:			
For accidental eye contact, rinse with water for 15 minutes. If irritation exists, call a physician.			
If respiratory irritation develops, call a physician. If swallowed, give 2 glasses of water and stick finger down the throat, induce vomiting, call a physician.			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
Minimize dusting and prevent distribution of airborne dust. Sweep up and collect in suitable containers.			
Waste Disposal Method			
Dry landfill or dissolve in sufficient amount of water to meet existing water quality standards.			
Consult local, state or federal regulations.			
Precautions to be Taken in Handling and Storing			
To prolong life, store in dry containers below 70 degrees F and below 75% humidity.			
Other Precautions			
Avoid skin contact and/or inhalation of dust. Wash thoroughly after handling.			
Section VIII - Control Measures			
Respiratory Protection			
Dust mask (NIOSH approved)			
Ventilation			
Local Exhaust	Special		
As needed		Not necessary	
Mechanical (General)	Other		
Dust collectors to prevent distribution of airborne dust.		Not necessary	
Protective Gloves	Eye Protection		
Recommended		Recommended	
Other Protective Clothing or Equipment			
Eyewash and safety shower			
Work/Hygienic Practices			
Avoid unnecessary and prolonged exposures.			
Section IX - Shipping Information			
Any transportation questions can be answered by Thetford Corporation's Traffic Department.			

Material Safety Data Sheet

FORM NUMBER: 50048

Section I Product Information/Preparation Information			
Identity: Toilet Seal Lubricant and Conditioner		Product Use: Lubricate and condition seal	
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)	
Address 7101 Jackson Road Ann Arbor, Michigan 48103		Telephone Number for Information (734) 769-6000	
		Date Prepared 16-Sept-05	Prepared By Janis M. Thomson
Section II - Hazardous Ingredients/Identity Information			
Hazardous Components Nonionic Surfactant	CAS # 34398-01-1	OSHA PEL	ACGIH Other Limits None Established
Section III - Hazards Identification and Toxicological Information			
Emergency Overview: Warning! Causes eye irritation.			
Route(s) of Entry: Inhalation: Not an inhalation hazard.			
Skin Contact: Not a skin hazard.			
Eye contact: Causes irritation.			
Ingestion: Not toxic.			
Chronic effects: Carcinogenicity: Not carcinogenic.			
Teratogenicity: Not teratogenic.			
Mutagenicity: Not mutagenic.			
Sensitization to Material: None known.			
Synergistic materials: None known.			
Toxicological Information:		LD ₅₀ : >5 g/kg (oral, rat)	LC ₅₀ :
		LD ₅₀ :	LC ₅₀ :
Section IV - First Aid Procedures:			
Inhalation: Not applicable.			
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.			
Skin: Flush contacted area with large amounts of water. Wash with soap and water.			
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes. Get medical attention immediately.			
Section V - Fire and Explosion Hazard Data			
Flash Point (Method used) >200°F (>93°C) (RTCC)	Flammable Limits by Volume N/A	LEL N/A	UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam	Hazardous Combustion Products None.		
Special Fire fighting Procedures None.	Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None	Conditions of Flammability Not flammable		
Explosion Data None	Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment

Respiratory Protection: Not required.	
Engineering Controls: Maintain adequate ventilation.	
Protective Gloves: Rubber gloves.	Eye Protection: Safety glasses or safety goggles.
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.	
Work/Hygienic Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.	

Section VII - Accidental Release Measures/Preventative Measures

Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.
Precautions to be Taken in Handling and Storing Do not store above 110°F (43°C). Do not freeze.
Other Precautions Spilled material may be slippery. Do not get liquid in eyes. Wash thoroughly after handling.

Section VIII - Physical/Chemical Characteristics

Boiling Point 210° F (99°C)	Specific Gravity (H2O = 1) 1.006	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Unknown	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 5 - 7	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Light blue liquid		

Section IX - Reactivity Hazards

Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur
Incompatibility (Materials to Avoid) Strong oxidizing or reducing agents	
Hazardous Decomposition or Byproducts None	
Conditions to Avoid Elevated temperatures	

Section XI - Shipping Information

Transportation Status: US DOT: Not Regulated Canadian TDG: Not Regulated	Proper Shipping Name: NA	Class: NA
For other modes of transportation, consult the individual regulations (IATA, IMDG) for shipping information.		

Material Safety Data Sheet

FORM NUMBER: 50076

Section I Product Information/Preparation Information				
Identity: Foaming Aqua-Clean		Product Use: Multipurpose surface cleaner		
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMREC-24 hours)		
Address 7101 Jackson Road Ann Arbor, MI 48103		Telephone Number for Information (734) 769-6000		
		Date Prepared 1-Feb-10	Prepared By Janis M. Thomson	
Section II - Hazardous Ingredients/Identity Information				
Hazardous Components	CAS #	OSHA PEL	ACGIH	Other Limits
Nonionic surfactant	68439-46-3			None established
Citric Acid	77-92-9			None established
Section III - Hazards Identification and Toxicological Information				
Emergency Overview: Warning! Causes eye irritation.				
Route(s) of Entry:				
Inhalation: Not an inhalation hazard.				
Skin Contact: Not a skin irritant.				
Eye contact: Causes Irritation.				
Ingestion: Non toxic if ingested.				
Chronic effects:				
Carcinogenicity: Not carcinogenic.				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material: None known				
Synergistic materials: None known				
Toxicological Information: Calculated for mixture		LD ₅₀ : 21,857 mg/kg (oral, rat)	LC ₅₀ :	
		LD ₅₀ :	LC ₅₀ :	
Section IV - First Aid Procedures:				
Inhalation: Not applicable.				
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.				
Skin: Wash thoroughly with soap and water. If irritation persists, get medical attention.				
Eyes: Flush eyes with large amounts of water for a minimum of 15 minutes. Get medical attention immediately.				
Section V - Fire and Explosion Hazard Data				
Flash Point (Method used) >200°F (>93°C) (RTCC)		Flammable Limits by Volume NA	LEL NA	UEL NA
Extinguishing Media Water, carbon dioxide, dry chemical, or foam		Hazardous Combustion Products Carbon monoxide and carbon dioxide		
Special Fire fighting Procedures None		Auto-ignition Temperature Not applicable	Sensitivity to Static Discharge No data available	
Unusual Fire and Explosion Hazards None		Conditions of Flammability Not flammable		
Explosion Data None		Sensitivity to Mechanical Impact No data available		

Section VI - Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber gloves	Eye Protection: Safety glasses or goggles	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed containers for disposal. Mop the area with plenty of cold, clean water.		
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.		
Precautions to be Taken in Handling and Storing Store below 100°F (38°C). Do not freeze.		
Other Precautions Spilled material may be slippery. Do not get liquid in eyes. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point 210°F (99°C)	Specific Gravity (H2O = 1) 1.062	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point NA	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Similar to water >1	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 2.8	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Clear, colorless liquid with detergent odor.		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong oxidizing materials.		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide and carbon dioxide.		
Conditions to Avoid Elevated temperatures.		
Section XI - Shipping Information		
Transportation Status: US DOT: Not Regulated Canadian TDG: Not Regulated	Proper Shipping Name: NA NA	Class: NA NA
For other modes of transportation, consult the individual regulations (IATA, IMDG) for shipping information.		

Material Safety Data Sheet

FORM NUMBER: 50018

Section I Product Information/Preparation Information				
Identity: Fresh Water Tank Sanitizer		Product Use: Sanitize fresh water holding tank		
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road Ann Arbor, Michigan 48103		Telephone Number for Information (734) 769-6000		
		Date Prepared 18-Sep-08	Prepared By Janis M. Thomson	
Section II - Hazardous Ingredients/Identity Information				
Hazardous Components	CAS #	OSHA PEL	ACGIH	Other Limits
Alkyl dimethyl benzyl ammonium chloride	68391-01-5			None established
Alkyl dimethyl ethylbenzyl ammonium chloride	68956-79-6			None established
Section III - Hazards Identification and Toxicological Information				
Emergency Overview:				
Warning! Corrosive to eyes and skin. Harmful if swallowed.				
Route(s) of Entry:				
Inhalation: Excessive inhalation may cause irritation of respiratory system, dizziness and nausea.				
Skin Contact: May be corrosive to the skin.				
Eye contact: May be corrosive to the eyes.				
Ingestion: Harmful in swallowed.				
Chronic effects:				
Carcinogenicity: Not carcinogenic.				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material: None known				
Synergistic materials: None known.				
Toxicological Information: Hazardous ingredient mixture		LD ₅₀ : <=500 mg/kg (oral, rat)	LC ₅₀ :	
		LD ₅₀ :	LC ₅₀ :	
Section IV - First Aid Procedures:				
Inhalation: Remove victim to fresh air. Get medical attention if symptoms persist.				
Ingestion: Do not induce vomiting. Get medical attention immediately.				
Skin: Flush area with water. Wash with soap and water. Seek medical attention or advice. Wash clothing before reuse.				
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes. Get medical attention immediately.				
Section V - Fire and Explosion Hazard Data				
Flash Point (Method used) >200°F (>93°C) (RTCC)		Flammable Limits by Volume N/A		LEL N/A
		UEL N/A		
Extinguishing Media Water, dry chemical, carbon dioxide or foam		Hazardous Combustion Products Oxides of carbon and nitrogen, ammonia		
Special Fire fighting Procedures Cool fire-exposed containers with water.		Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None		Conditions of Flammability Not flammable		
Explosion Data None		Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber gloves.	Eye Protection: Safety glasses or safety goggles, face shield if splashing is possible .	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.		
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.		
Precautions to be Taken in Handling and Storing Store in cool, well ventilated area. DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.		
Other Precautions Spilled material may be slippery. Avoid breathing vapors or mists. Do not get liquid in eyes or on skin. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point Not determined	Specific Gravity (H2O = 1) 1.00	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Estimated slower than ethyl ether	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 7 - 8	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Clear, colorless liquid		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong acids and anionic compounds.		
Hazardous Decomposition or Byproducts Thermal decomposition may produce oxides of carbon and nitrogen, ammonia		
Conditions to Avoid Elevated temperatures, sparks and open flame		
Section XI - Shipping Information		
Transportation Status: US DOT: Regulated Canadian TDG: Regulated	Proper Shipping Name: Consumer Commodity Consumer Commodity	Class: ORM D ORM D
Regulated under other modes of transportation as UN1760 limited quantities. Consult the individual regulations, IATA via air, IMDG via water and TDG in Canada, for shipping information.		

CPSIA CERTIFICATION OF COMPLIANCE

Product: Thetford Fresh Water Tank Sanitizer

1. Laws and Regulations for which compliance is certified:

Packaging Requirement for Pesticides and Devices – 40 CFR Part 157
Poison Prevention Packaging Act – 16 CFR Part 1700

2. Party Certifying Compliance:

Great Lakes Marketing
3103 Executive Pkwy, Ste 106
Toledo, OH 43606
(419) 534-4700
June 2010

3. Date and Place of Manufacture:

Thetford Corporation
7101 Jackson Road
Ann Arbor, MI 48103
Date of manufacture is coded on the container. Code is yymmdd.

4. Contact Information:

Janis Thomson
Regulations Chemist
(734) 997-6558
jthomson@thetford.com

MATERIAL SAFETY DATA SHEET
SPRING FRESH Page: 1

PRODUCT NAME: SPRING FRESH
HMIS CODES: H F R P
1 0 1 C
PRODUCT CODE: 40207

=====
SECTION I - MANUFACTURER IDENTIFICATION
=====

MANUFACTURER'S NAME: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
Greensboro, NC 27409

EMERGENCY PHONE: 336-668-7661 DATE PRINTED: 02/23/98
INFORMATION PHONE: 336-668-7661
NAME OF PREPARER: CAMCO MANUFACTURING, INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004

=====
SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION
=====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
N-Alkyl-N-benzylammonium chloride	68424-85-1		<2%

=====
SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS
=====

BOILING RANGE: 100C - 105 C SPECIFIC GRAVITY (H2O=1): 0.98
VAPOR DENSITY: NOT DETERMINED
EVAPORATION RATE: NOT DETERMINED
SOLUBILITY IN WATER: Completely Soluble
APPEARANCE AND ODOR: CLEAR BLUE LIQUID, LEMON SCENT

=====
SECTION IV - FIRE AND EXPLOSION HAZARD DATA
=====

FLASH POINT: Non Combustable METHOD USED: n/a
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: n/a UPPER: n/a
EXTINGUISHING MEDIA: dry chemical, carbon dioxide, water spray or regular foam.

MATERIAL SAFETY DATA SHEET
SPRING FRESH

Page: 2

SPECIAL FIREFIGHTING PROCEDURES:

Use self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None known

===== **SECTION V - REACTIVITY DATA** =====

STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat, poor ventilation, corrosive atmospheres, excessive aging.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids and strong bases.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon Monoxide, Carbon Dioxide and Nitrogen compounds.

HAZARDOUS POLYMERIZATION: Will not occur.

===== **SECTION VI - HEALTH HAZARD DATA** =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

INHALATION: Vapors may cause irritation of the respiratory tract.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN CONTACT: Slight irritant.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN ABSORPTION: No evidence of harmful effects from available information.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

INGESTION: Can cause gastrointestinal irritation, vomiting, nausea, and diarrhea.

MATERIAL SAFETY DATA SHEET
SPRING FRESH

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HEALTH HAZARDS (ACUTE AND CHRONIC): None known.

CARCINOGENICITY: No.
NTP CARCINOGEN: No
IARC MONOGRAPHS: No
OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
None known

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Move person to fresh air. If breathing stops, apply artificial respiration and seek immediate medical attention.

EYE CONTACT: Flush with large quantities of water for 15 minutes.

SKIN CONTACT: Wash with soap and water immediately.

INGESTION: Dilute by drinking water. Contact physician or poison control.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Absorb liquid with inert solids and shovel into containers suitable for transport and disposal. Rinse area with fresh water.

WASTE DISPOSAL METHOD:
Dispose in accordance with federal, state and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Keep away from heat or open flame. Do not swallow. Avoid contact with eyes. Use with adequate ventilation. Wash thoroughly after handling.

OTHER PRECAUTIONS:
Store in closed containers in a cool, dry, well ventilated area. Keep away from sparks and open flame.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION:

Use of approved organic vapor-type respirator is recommended.

VENTILATION:

General ventilation is sufficient.

PROTECTIVE GLOVES:

Wear appropriate impermeable gloves.

EYE PROTECTION:

Use chemical safety glasses.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Long sleeves and apron is recommended.

WORK/HYGIENIC PRACTICES:

Eye washes and safety showers in the workplace are recommended.
Avoid prolonged or repeated skin contact. Use only with adequate ventilation.
Wash thoroughly after handling.

===== SECTION IX - DISCLAIMER =====

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of his own use, handling and disposal of this product.

Material Safety Data Sheet

FORM NUMBER: 6400

Section I: Product Information/Preparation Information				
Identity: Black Streak & Bug Remover		Product Use: RV Maintenance		
Manufacturer's Name Thelford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road		Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103		Date Prepared 17-Aug-01	Prepared By Janis M. Thomson	
Section II: Hazardous Ingredients/Identity Information				
Hazardous Components		CAS #	OSHA PEL	ACGIH
Alkyl Polyglycoside Surfactant		NA - Mixture	None Established	Other Limits
Section III: Hazards Identification and Toxicological Information				
Emergency Overview: Product presents no hazards				
Route(s) of Entry:				
Inhalation: Not an inhalation hazard.				
Skin Contact: Not a skin hazard.				
Eye contact: Not an eye irritant.				
Ingestion: Non toxic if ingested.				
Chronic effects:				
None known.				
Carcinogenicity: Not carcinogenic				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material:				
None known.				
Synergistic materials: None known.				
Surfactant		LD ₅₀ : >2 g/kg (dermal, rabbit)	LD ₅₀ : > 5 g/kg oral, rat)	
Section IV: First Aid Procedures:				
Inhalation: Not applicable.				
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.				
Skin: Flush contacted area with large amounts of water. Wash with soap and water.				
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.				
Get medical attention immediately.				
Section V: Fire and Explosion Hazard Data				
Flash Point (Method used) > 200°F (>93°C) (RTCC)		Flammable Limits by Volume N/A		LEL N/A
				UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam		Hazardous Combustion Products Carbon monoxide, carbon dioxide and nitrogen		
Special Fire fighting Procedures Cool fire-exposed containers with water.		Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None		Conditions of Flammability Not flammable		
Explosion Data None		Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment

Respiratory Protection:

Not required.

Engineering Controls:

Maintain adequate ventilation.

Protective Gloves:

Rubber or neoprene gloves.

Eye Protection:

Face shield with safety glasses or safety goggles.

Other Protective Clothing or Equipment:

Protective clothing to avoid skin contact. Eyewash station and safety shower.

Work/Hygienic Practices

Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.

Section VII - Accidental Release Measures/Preventative Measures

Steps to be Taken in Case Material is Released or Spilled:

Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material
Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.

Waste Disposal Method

Incineration or biological treatment in Federal/State approved treatment facility.

Precautions to be Taken in Handling and Storing

Do not store above 100° F (38°C). Do not freeze.

Other Precautions

Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.

Section VIII - Physical/Chemical Characteristics

Boiling Point	210° F (99°C)	Specific Gravity (H ₂ O = 1)	1.028	Physical State	Liquid
Vapor Pressure (mm Hg)	Not determined	Melting Point	Not applicable	Odor Threshold	Not determined
Vapor Density (AIR = 1)	Not determined	Evaporation Rate (Butyl Acetate = 1)	Similar to water >1	Freezing Point	32°F (0°C)
Solubility in Water	Complete	pH	12 - 13	Coeff. Water/Oil Dist.	Not available

Appearance and Odor

Clear, colorless liquid with a mild detergent odor.

Section IX - Reactivity Hazards

Stability	X Stable	Hazardous Polymerization	May Occur
	Unstable		X Will Not Occur

Incompatibility (Materials to Avoid)

Strong acids, bases and oxidizing agents

Hazardous Decomposition or Byproducts

Thermal decomposition may produce carbon monoxide, carbon dioxide and nitrogen

Conditions to Avoid

Elevated temperatures

Section XI - Shipping Information

Shipping Instructions for Consumer Commodities:

US transportation questions can be answered by Thelford Corporation's Traffic Department.

Consult TDG Regulations for Canadian shipping information.

Material Safety Data Sheet

FORM NUMBER: 6400

Section I: Product Information/Preparation Information					
Identity: Black Streak & Bug Remover		Product Use: RV Maintenance			
Manufacturer's Name Thelford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)			
Address 7101 Jackson Road		Telephone Number for Information (734) 769-6000			
Ann Arbor, Michigan 48103		Date Prepared 17-Aug-01	Prepared By Janis M. Thomson		
Section II: Hazardous Ingredients/Identity Information					
Hazardous Components		CAS #	OSHA PEL	ACGIH	Other Limits
Alkyl Polyglycoside Surfactant		NA - Mixture		None Established	
Section III: Hazards Identification and Toxicological Information					
Emergency Overview: Product presents no hazards					
Route(s) of Entry:					
Inhalation: Not an inhalation hazard.					
Skin Contact: Not a skin hazard.					
Eye contact: Not an eye irritant.					
Ingestion: Non toxic if ingested.					
Chronic effects:					
None known.					
Carcinogenicity: Not carcinogenic					
Teratogenicity: Not teratogenic.					
Mutagenicity: Not mutagenic.					
Sensitization to Material:					
None known.					
Synergistic materials: None known.					
Surfactant		LD ₅₀ : >2 g/kg (dermal, rabbit)	LD ₅₀ : > 5 g/kg oral, rat)		
Section IV: First Aid Procedures:					
Inhalation: Not applicable.					
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.					
Skin: Flush contacted area with large amounts of water. Wash with soap and water.					
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.					
Get medical attention immediately.					
Section V: Fire and Explosion Hazard Data					
Flash Point (Method used) > 200°F (>93°C) (RTCC)		Flammable Limits by Volume N/A		LEL N/A	UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam			Hazardous Combustion Products Carbon monoxide, carbon dioxide and nitrogen		
Special Fire fighting Procedures Cool fire-exposed containers with water.			Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None			Conditions of Flammability Not flammable		
Explosion Data None			Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment:

Respiratory Protection:

Not required.

Engineering Controls:

Maintain adequate ventilation.

Protective Gloves:

Rubber or neoprene gloves.

Eye Protection:

Face shield with safety glasses or safety goggles.

Other Protective Clothing or Equipment:

Protective clothing to avoid skin contact. Eyewash station and safety shower.

Work/Hygienic Practices

Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.

Section VII - Accidental Release Measures/Preventative Measures

Steps to be Taken In Case Material is Released or Spilled:

Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material

Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.

Waste Disposal Method

Incineration or biological treatment in Federal/State approved treatment facility.

Precautions to be Taken in Handling and Storing

Do not store above 100° F (38°C). Do not freeze.

Other Precautions

Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.

Section VIII - Physical/Chemical Characteristics

Boiling Point

210° F (99°C)

Specific Gravity (H₂O = 1)

1.028

Physical State

Liquid

Vapor Pressure (mm Hg)

Not determined

Melting Point

Not applicable

Odor Threshold

Not determined

Vapor Density (AIR = 1)

Not determined

Evaporation Rate (Butyl Acetate = 1)

Similar to water >1

Freezing Point

32°F (0°C)

Solubility in Water

Complete

pH

12 - 13

Coeff. Water/Oil Dist.

Not available

Appearance and Odor

Clear, colorless liquid with a mild detergent odor

Section IX - Reactivity Hazards

Stability

X Stable

Unstable

Hazardous Polymerization

May Occur

X Will Not Occur

Incompatibility (Materials to Avoid)

Strong acids, bases and oxidizing agents

Hazardous Decomposition or Byproducts

Thermal decomposition may produce carbon monoxide, carbon dioxide and nitrogen

Conditions to Avoid

Elevated temperatures

Section XI - Shipping Information

Shipping Instructions for Consumer Commodities:

US transportation questions can be answered by Thetford Corporation's Traffic Department.

Consult TDG Regulations for Canadian shipping information.

Material Safety Data Sheet

FORM NUMBER: 6500

Section I: Product Information/Preparation Information

Identity: Rubber Roof Cleaner	Product Use: RV Maintenance	
Manufacturer's Name Thelford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)	
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000	
Ann Arbor, Michigan 48103	Date Prepared 17-Aug-01	Prepared By Janis M. Thomson

Section II: Hazardous Ingredients/Identity Information

Hazardous Components	CAS #	OSHA PEL	ACGIH	Other Limits
Alkyl Polyglycoside Surfactant	NA - Mixture		None Established	

Section III: Hazards Identification and Toxicological Information

<p>Emergency Overview: Warning! Causes eye irritation.</p>
Route(s) of Entry:
Inhalation: Not an inhalation hazard.
Skin Contact: Not a skin irritant.
Eye contact: Causes irritation.
Ingestion: Non toxic if ingested.
Chronic effects:
None known.
Carcinogenicity: Not carcinogenic
Teratogenicity: Not teratogenic.
Mutagenicity: Not mutagenic.
Sensitization to Material:
None known.
Synergistic materials: None known.
Surfactant LD ₅₀ : >2 g/kg (dermal, rabbit) LD ₅₀ : > 5 g/kg (oral, rat)

Section IV: First Aid Procedures

Inhalation: Not applicable.
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.
Skin: Flush contacted area with large amounts of water. Wash with soap and water.
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.
Get medical attention immediately.

Section V: Fire and Explosion Hazard Data

Flash Point (Method used) > 200°F (>93°C) (RTCC)	Flammable Limits by Volume N/A	LEL N/A	UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam	Hazardous Combustion Products Oxides of carbon, oxides of sulfur and nitrogen		
Special Fire fighting Procedures Cool fire-exposed containers with water.	Auto-Ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None	Conditions of Flammability Not flammable		
Explosion Data None	Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber or neoprene gloves.	Eye Protection: Safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.		
Waste Disposal Method Incineration or biological treatment in Federal/State approved treatment facility.		
Precautions to be Taken in Handling and Storing Do not store above 100° F (38°C). Do not freeze.		
Other Precautions Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point 210° F (99°C)	Specific Gravity (H ₂ O = 1) 1.014	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Similar to water >1	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 8.5 - 9.5	Coeff. Water/Oil Dist. Not available
Appearance and Odor Clear, colorless liquid with a strong detergent odor		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X. Will Not Occur	
Incompatibility (Materials to Avoid) Strong acids, bases and oxidizing agents		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide, carbon dioxide and nitrogen		
Conditions to Avoid Elevated temperatures		
Section XI - Shipping Information		
Shipping Instructions for Consumer Commodities: US transportation questions can be answered by Thetford Corporation's Traffic Department. Consult TDG Regulations for Canadian shipping information.		

Material Safety Data Sheet

FORM NUMBER: 6500

Section I: Product Information/Preparation Information				
Identity: Rubber Roof Cleaner		Product Use: RV Maintenance		
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road		Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103		Date Prepared 17-Aug-01	Prepared By Janis M. Thomson	
Section II: Hazardous Ingredients/Identity Information				
Hazardous Components		CAS #	OSHA PEL	ACGIH
Alkyl Polyglycoside Surfactant		NA - Mixture		None Established
				Other Limits
Section III: Hazards Identification and Toxicological Information				
Emergency Overview: Warning! Causes eye irritation.				
Route(s) of Entry:				
Inhalation: Not an inhalation hazard.				
Skin Contact: Not a skin irritant.				
Eye contact: Causes irritation.				
Ingestion: Non toxic if ingested.				
Chronic effects:				
None known.				
Carcinogenicity: Not carcinogenic				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material:				
None known.				
Synergistic materials: None known.				
Surfactant		LD ₅₀ : >2 g/kg (dermal, rabbit)		LD ₅₀ : > 5 g/kg (oral, rat)
Section IV: First Aid Procedures:				
Inhalation: Not applicable.				
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.				
Skin: Flush contacted area with large amounts of water. Wash with soap and water.				
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.				
Get medical attention immediately.				
Section V: Fire and Explosion Hazard Data				
Flash Point (Method used) > 200°F (>93°C) (RTCC)		Flammable Limits by Volume N/A		LEL N/A
				UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam		Hazardous Combustion Products Oxides of carbon, oxides of sulfur and nitrogen		
Special Fire fighting Procedures Cool fire-exposed containers with water.		Auto-ignition Temperature Not available		Sensitivity to Static Discharge Not available
Usual Fire and Explosion Hazards None		Conditions of Flammability Not flammable		
Explosion Data None		Sensitivity to Mechanical Impact Not available		

Section VI - Personal Protective Equipment

Respiratory Protection:

Not required.

Engineering Controls:

Maintain adequate ventilation.

Protective Gloves:

Rubber or neoprene gloves.

Eye Protection:

Safety glasses or safety goggles.

Other Protective Clothing or Equipment:

Protective clothing to avoid skin contact. Eyewash station and safety shower.

Work/Hygienic Practices

Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.

Section VII - Accidental Release Measures/Preventative Measures

Steps to be Taken in Case Material is Released or Spilled:

Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material
Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.

Waste Disposal Method

Incineration or biological treatment in Federal/State approved treatment facility.

Precautions to be Taken in Handling and Storing

Do not store above 100° F (38°C). Do not freeze.

Other Precautions

Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.

Section VIII - Physical/Chemical Characteristics

Boiling Point

210° F (99°C)

Specific Gravity (H₂O = 1)

1.014

Physical State

Liquid

Vapor Pressure (mm Hg)

Not determined

Melting Point

Not applicable

Odor Threshold

Not determined

Vapor Density (AIR = 1)

Not determined

Evaporation Rate (Butyl Acetate = 1)

Similar to water >1

Freezing Point

32°F (0°C)

Solubility in Water

Complete

pH

8.5 - 9.5

Coeff. Water/Oil Dist.

Not available

Appearance and Odor

Clear, colorless liquid with a strong detergent odor

Section IX - Reactivity Hazards

Stability

X Stable

Hazardous Polymerization

May Occur

Unstable

X Will Not Occur

Incompatibility (Materials to Avoid)

Strong acids, bases and oxidizing agents

Hazardous Decomposition or Byproducts

Thermal decomposition may produce carbon monoxide, carbon dioxide and nitrogen

Conditions to Avoid

Elevated temperatures

Section XI - Shipping Information

Shipping Instructions for Consumer Commodities:

US transportation questions can be answered by Thetford Corporation's Traffic Department.

Consult TDG Regulations for Canadian shipping information.

Material Safety Data Sheet

FORM NUMBER: 6700

Section I: Product Information/Preparation Information				
Identity: RV Wash & Wax	Product Use: RV Maintenance			
Manufacturer's Name Theftford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)			
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000			
Ann Arbor, Michigan 48103	Date Prepared 17-Aug-01	Prepared By Janis M. Thomson		
Section II: Hazardous Ingredients/Identity Information				
Hazardous Components	CAS #	OSHA PEL	ACGIH	Other Limits
Alkyl Polyglycoside Surfactant	NA - Mixture		None Established	
Dicoco dimethyl ammonium chloride	61789-77-3		None Established	
Section III: Hazards Identification and Toxicological Information				
Emergency Overview:				
Warning! Causes eye and skin irritation.				
Route(s) of Entry:				
Inhalation: Not an inhalation hazard.				
Skin Contact: May cause irritation.				
Eye contact: Causes irritation.				
Ingestion: Non toxic if ingested.				
Chronic effects:				
None known.				
Carcinogenicity: Not carcinogenic.				
Teratogenicity: Not teratogenic.				
Mutagenicity: Not mutagenic.				
Sensitization to Material:				
None known.				
Synergistic materials: None known.				
Surfactant	LD₅₀: >2 g/kg (dermal, rabbit)	LD₅₀: > 5 g/kg (oral, rat)		
Dicoco dimethyl ammonium chloride	LD₅₀: 960 mg/kg (oral, rat)			
Section IV: First Aid Procedures:				
Inhalation: Not applicable.				
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.				
Skin: Flush contacted area with large amounts of water. Wash with soap and water.				
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.				
Get medical attention immediately.				
Section V: Fire and Explosion Hazard Data				
Flash Point (Method used)	Flammable Limits by Volume		LEL	UEL
> 200°F (>93°C) (RTCC)	N/A		N/A	N/A
Extinguishing Media	Hazardous Combustion Products			
Water, dry chemical, carbon dioxide or foam	Carbon monoxide and carbon dioxide			
Special Fire fighting Procedures	Auto-ignition Temperature		Sensitivity to Static Discharge	
None	Not available		Not available	
Unusual Fire and Explosion Hazards	Conditions of Flammability			
None	Not flammable			
Explosion Data	Sensitivity to Mechanical Impact			
None	Not available			

Section VI - Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber or neoprene gloves.	Eye Protection: Safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices: Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.		
Waste Disposal Method Incineration or biological treatment in Federal/State approved treatment facility.		
Precautions to be Taken in Handling and Storing Do not store above 100° F (38°C). Do not freeze.		
Other Precautions Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point 210° F (99°C)	Specific Gravity (H ₂ O = 1) 1.019	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Similar to water >1	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 7.5 - 8.5	Coeff. Water/Oil Dist. Not available
Appearance and Odor Green liquid with a lemon scent		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong acids, bases and oxidizing agents		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide and carbon dioxide		
Conditions to Avoid Elevated temperatures.		
Section XI - Shipping Information		
Shipping Instructions for Consumer Commodities: US transportation questions can be answered by Thetford Corporation's Traffic Department. Consult TDG Regulations for Canadian shipping information.		

Material Safety Data Sheet

FORM NUMBER: 6800

Section I: Product Information/Preparation Information			
Identity: Premium RV Awning Cleaner	Product Use: RV Maintenance		
Manufacturer's Name Thetford Corporation	Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)		
Address 7101 Jackson Road	Telephone Number for Information (734) 769-6000		
Ann Arbor, Michigan 48103	Date Prepared 17-Aug-01	Prepared By Janis M. Thomson	
Section II: Hazardous Ingredients/Identity Information			
Hazardous Components	CAS #	OSHA PEL	ACGIH Other Limits
Alkyl Polyglycoside Surfactant	NA - Mixture	None Established	
Section III: Hazards, Identification and Toxicological Information			
Emergency Overview: Warning! Causes eye irritation.			
Route(s) of Entry:			
Inhalation: Not an inhalation hazard.			
Skin Contact: Not a skin irritant.			
Eye contact: Causes irritation.			
Ingestion: Non toxic if ingested.			
Chronic effects:			
None known.			
Carcinogenicity: Not carcinogenic			
Teratogenicity: Not teratogenic.			
Mutagenicity: Not mutagenic.			
Sensitization to Material:			
None known.			
Synergistic materials: None known.			
Surfactant	LD ₅₀ : >2 g/kg (dermal, rabbit)	LD ₅₀ : > 5 g/kg (oral, rat)	
Section IV: First Aid Procedures:			
Inhalation: Not applicable.			
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.			
Skin: Flush contacted area with large amounts of water. Wash with soap and water.			
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes.			
Get medical attention immediately.			
Section V: Fire and Explosion Hazard Data			
Flash Point (Method used) > 200°F (>93°C) (RTCC)	Flammable Limits by Volume N/A		LEL N/A
UEL N/A			
Extinguishing Media Water, dry chemical, carbon dioxide or foam	Hazardous Combustion Products Oxides of carbon, oxides of sulfur and nitrogen		
Special Fire fighting Procedures Cool fire-exposed containers with water.	Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available	
Unusual Fire and Explosion Hazards None	Conditions of Flammability Not flammable		
Explosion Data None	Sensitivity to Mechanical Impact Not available		

Section VI: Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber or neoprene gloves.	Eye Protection: Safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygiene Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII: Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition: Clean up small spills with water. Soak up larger spills with absorbent material Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.		
Waste Disposal Method Incineration or biological treatment in Federal/State approved treatment facility.		
Precautions to be Taken in Handling and Storing Do not store above 100° F (38°C). Do not freeze.		
Other Precautions Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.		
Section VIII: Physical/Chemical Characteristics		
Boiling Point 210° F (99°C)	Specific Gravity (H ₂ O = 1) 1.016	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Similar to water >1	Freezing Point 32°F (0°C)
Solubility in Water Complete	pH 8.5 - 9.5	Coeff. Water/Oil Dist. Not available
Appearance and Odor Clear, colorless liquid with a vinyl scent		
Section IX: Reactivity/Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong acids, bases and oxidizing agents		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide, carbon dioxide, nitrogen, and oxides of sulfur.		
Conditions to Avoid Elevated temperatures		
Section XI: Shipping Information		
Shipping Instructions for Consumer Commodities: US transportation questions can be answered by Thetford Corporation's Traffic Department. Consult TDG Regulations for Canadian shipping information.		

Material Safety Data Sheet

FORM NUMBER: 50006

Section I Product Information/Preparation Information			
Identity: Awning Cleaner - Foaming and Regular		Product Use: RV Maintenance	
Manufacturer's Name Thetford Corporation		Emergency Telephone Number (734) 769-6000; (800) 424-9300 (CHEMTREC-24 hrs)	
Address 7101 Jackson Road Ann Arbor, Michigan 48103		Telephone Number for Information (734) 769-6000	
		Date Prepared 8-Nov-06	Prepared By Janis M. Thomson
Section II - Hazardous Ingredients/Identity Information			
Hazardous Components Alkyl Polyglycoside Surfactant	CAS # NA - Mixture	OSHA PEL	ACGIH Other Limits None established
Section III - Hazards Identification and Toxicological Information			
Emergency Overview: Warning! Causes eye irritation.			
Route(s) of Entry:			
Inhalation: Not an inhalation hazard.			
Skin Contact: Not a skin irritant.			
Eye contact: Causes irritation.			
Ingestion: Non toxic if ingested.			
Chronic effects:			
Carcinogenicity: Not carcinogenic.			
Teratogenicity: Not teratogenic.			
Mutagenicity: Not mutagenic.			
Sensitization to Material: None known.			
Synergistic materials: None known.			
Toxicological Information: Surfactant		LD ₅₀ : >5 g/kg (oral, rat)	LC ₅₀ :
		LD ₅₀ : >2 g/kg (dermal, rabbit)	LC ₅₀ :
Section IV - First Aid Procedures:			
Inhalation: Not applicable.			
Ingestion: Do not induce vomiting. Drink 2 glasses of water. Contact a physician.			
Skin: Flush contacted area with large amounts of water. Wash with soap and water.			
Eyes: Flush contacted area with large amounts of water. Irrigate eyes for a minimum of 15 minutes. Get medical attention immediately.			
Section V - Fire and Explosion Hazard Data			
Flash Point (Method used) > 200°F (>93°C) (RTCC)		Flammable Limits by Volume N/A	LEL N/A
			UEL N/A
Extinguishing Media Water, dry chemical, carbon dioxide or foam		Hazardous Combustion Products Oxides of carbon, oxides of sulfur and nitrogen	
Special Fire fighting Procedures Cool fire-exposed containers with water.		Auto-ignition Temperature Not available	Sensitivity to Static Discharge Not available
Unusual Fire and Explosion Hazards None		Conditions of Flammability Not flammable	
Explosion Data None		Sensitivity to Mechanical Impact Not available	

Section VI - Personal Protective Equipment		
Respiratory Protection: Not required.		
Engineering Controls: Maintain adequate ventilation.		
Protective Gloves: Rubber or neoprene gloves.	Eye Protection: Safety glasses or safety goggles.	
Other Protective Clothing or Equipment: Protective clothing to avoid skin contact. Eyewash station and safety shower.		
Work/Hygienic Practices Avoid unnecessary contact. Wash thoroughly after handling especially before eating, drinking or smoking.		
Section VII - Accidental Release Measures/Preventative Measures		
Steps to be Taken in Case Material is Released or Spilled: Eliminate sources of ignition. Clean up small spills with water. Soak up larger spills with absorbent material. Place used absorbent in closed containers for disposal. Mop area with plenty of clean, cold water.		
Waste Disposal Method Dispose of in accordance with federal, state and local regulations.		
Precautions to be Taken in Handling and Storing Do not store above 100° F (38°C). Do not freeze.		
Other Precautions Spilled material may be slippery. Do not get liquid in eyes or on skin. Wash thoroughly after handling.		
Section VIII - Physical/Chemical Characteristics		
Boiling Point 210° F (99°C)	Specific Gravity (H2O = 1) 1.016	Physical State Liquid
Vapor Pressure (mm Hg) Not determined	Melting Point Not applicable	Odor Threshold Not determined
Vapor Density (AIR = 1) Not determined	Evaporation Rate (Butyl Acetate = 1) Not available	Freezing Point 32 °F (0°C)
Solubility in Water Complete	pH 8.5 - 9.5	Coeff. Water/Oil Dist. Not determined
Appearance and Odor Clear, colorless liquid with a vinyl scent		
Section IX - Reactivity Hazards		
Stability X Stable Unstable	Hazardous Polymerization May Occur X Will Not Occur	
Incompatibility (Materials to Avoid) Strong acids, bases and oxidizing agents		
Hazardous Decomposition or Byproducts Thermal decomposition may produce carbon monoxide, carbon dioxide, nitrogen, and oxides of sulfur		
Conditions to Avoid Elevated temperatures		
Section XI - Shipping Information		
Transportation Status: US DOT: Not Regulated Canadian TDG: Not Regulated	Proper Shipping Name: NA	Class: NA
For other modes of transportation, consult the individual regulations (IATA, IMDG) for shipping information.		

SAFETY DATA SHEET

Reliable Spray Cleaner

Prepared to U.S. OSHA, ANSI, & Canadian WHMIS Standards

A1002

SECTION 1. PRODUCT IDENTIFICATION

<p>1 TRADE NAME (AS LABELED): SYNONYMS: CAS#:</p> <p>1.2 PRODUCT USE: CHEMICAL SHIPPING NAME/CLASS: U.N. NUMBER:</p> <p>1.3 NORTH AMERICA: MANUFACTURER'S NAME: ADDRESS: BUSINESS PHONE: EMAIL: WEB SITE INFORMATION:</p> <p>1.4 EMERGENCY PHONE NUMBERS: DATE OF CURRENT REVISION: DATE OF LAST REVISION:</p>	<p>Reliable Spray Cleaner N/A Mixture Cleaning agent Corrosive liquids, N.O.S / Class 8 - Corrosive UN1760</p> <p>Reliable Products 639 Fitch Street, Oneida, NY 13421 800-932-8742 spraynwipe@aol.com reliableproductsonline.com 1-800-424-9300 (CHEMTREC – 24 Hrs) July 02, 2014 December 20, 2004</p>
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SECTION 2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a blue thin liquid with a mild odor.
Health Hazards: Corrosive: May cause serious eye damage. May be harmful if swallowed, inhaled, or in contact with skin.
Flammability Hazards: This product is a non-flammable liquid.
Reactivity Hazards: Corrosive.
Environmental Hazards: The Environmental effects of this product have not been investigated, however release may cause adverse environmental effects.

GHS Hazard Symbol(s)



CANADA (WHMIS) SYMBOL(S)



US DOT SYMBOL(S)



Signal Word: **Danger!**

2.1 GHS LABELING AND HAZARD CLASSIFICATION:

This product does meet the definition of a hazardous substance or preparation as defined by Health Canada and the OSHA (as described in 29 CFR 1910.1200(d))

Component(s) Contributing to Classification(s)

Ethylene Glycol Butyl Ether

2.2 LABEL ELEMENTS

GHS Hazard Classification(s):

Acute toxicity, Oral Category 4
 Acute toxicity, Dermal Category 4
 Acute toxicity, Inhalation Category 4
 Skin Corrosion/Irritation Category 1B
 Serious Eye Damage Category 1

Hazard Statement(s):

H302 Harmful if swallowed
 H332 Harmful if inhaled
 H312 Harmful in contact with skin
 H314 Causes severe skin burns and eye damage

Precautionary Statement(s)

P260 Do not breathe dusts or mists
 P264 Wash thoroughly after handling
 P270 Do not eat, drink or smoke when using this product

Storage Statement(s):

P403+P235 Store in a well-ventilated place. Keep cool

Disposal Statement(s):

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Response Statement(s):

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statement(s) continued:

P271 Use only outdoors or in a well-ventilated area
 P280 Use protective gloves/protective clothing/eye protection/face protection

Response Statement(s) continued:

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a Poison Center or doctor if you feel unwell
 P362+P364 Take off contaminated clothing and wash it before reuse

2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

ACUTE:

INHALATION: Harmful if inhaled. Mist or spray may cause a burning sensation, cough, shortness of breath, or sore throat. May effect behavior, cause headaches or vomiting

CONTACT WITH SKIN: Corrosive material may cause redness, skin burns, or blisters.

EYE CONTACT: Corrosive material may cause irritation with possible burns and tissue damage.

INGESTION: Harmful if swallowed. May cause irritation or pain to the gastrointestinal tract. . May affect behavior/central nervous system

CHRONIC: Prolonged exposure to the skin may cause irritation, dryness, or cracking. Prolonged or repeated inhalation or ingestion may affect the blood, kidneys, or liver.

TARGET ORGANS: **Acute:** Skin, Eyes, Respiratory System, Central Nervous System
Chronic: Skin, blood, kidneys, liver

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPOSITION	WT. PERCENTAGE	CAS#	HAZARD CLASSIFICATION
Ethylene Glycol Butyl Ether	5 – 10%	111-76-2	[Xn] Harmful
Balance of other ingredients are non-hazardous or less than 1% in concentration (<0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).			

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If this product is swallowed, call physician or poison control center for treatment advice. Do not induce vomiting unless told to do so by a poison control center or physician. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. If transporting take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin problems may be aggravated by prolonged contact.

4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Contact with eyes may cause irritation with possible burns and tissue damage. Prolonged skin exposure may cause mild irritation or dryness. Prolonged or repeated inhalation or ingestion may cause hematuria (blood in the urine)

3 RECOMMENDATIONS TO PHYSICIANS:

Treat symptoms and eliminate overexposure.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 FIRE EXTINGUISHING MATERIALS:

Use fire extinguishing methods below:

Water Spray: Yes Carbon Dioxide: Yes
Foam: Yes Dry Chemical: Yes
Halon: Yes Other: Any "C" Class

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: Yes

FLASH POINT: Not determined

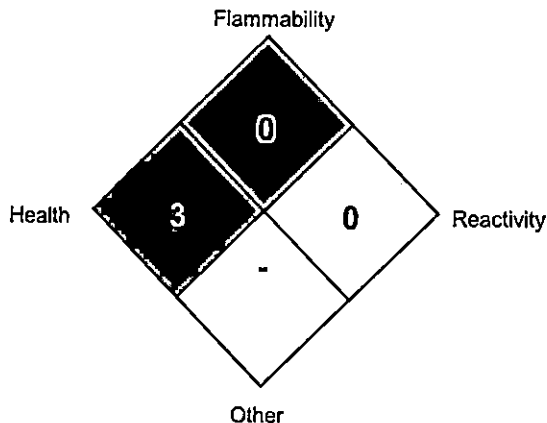
AUTOIGNITION TEMPERATURE: Not determined

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			3
FLAMMABILITY HAZARD (RED)			0
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

See Section 8.2 for Exposure Controls

6.2 ENVIRONMENTAL PRECAUTIONS:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils

6.3 SPILL AND LEAK RESPONSE:

Stop the flow of material, if this can be done safely. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces. (see Section 13, Disposal Considerations).

SECTION 7. HANDLING and STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices. When handling, do not eat, drink, or smoke. Handle in a well-ventilated work area.

7.2 STORAGE AND HANDLING PRACTICES:

Store in original container. Keep away from: oxidizing agents. Keep in a well-ventilated area in closed containers. Protect containers from physical damage.

7.3 SPECIFIC USES:

Cleaning agent

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Ethylene Glycol Butyl Ether	111-76-2	20 ppm	50 ppm 240 mg/m ³

8.2 EXPOSURE CONTROLS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada.

RESPIRATORY PROTECTION: Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93.

EYE PROTECTION: Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Standards of Canada.

HAND PROTECTION: Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9. PHYSICAL and CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE (Physical State) and COLOR: Blue thin liquid

ODOR: Mild odor

ODOR THRESHOLD: Not Applicable

pH: 13-14

MELTING/FREEZING POINT: Not Available

BOILING POINT: 212°F (100°C)

FLASH POINT: Not Available

EVAPORATION RATE (n-BuAc=1): 1.0

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXLOSION LIMITS: Not Applicable

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

RELATIVE DENSITY: Not Available

SPECIFIC GRAVITY: 1.043

SOLUBILITY IN WATER: Complete

WEIGHT PER GALLON: Not Available

PARTITION COEFFICENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Applicable

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available

9.2 OTHER INFORMATION:

No additional information available

SECTION 10. STABILITY and REACTIVITY

10.1 REACTIVITY:

None known

SAFETY DATA SHEET

Reliable Spray Cleaner

10.2 STABILITY:

Stable under conditions of normal storage and use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Will not occur.

10.4 CONDITIONS TO AVOID:

Contact with incompatible materials.

10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

Strong oxidizing agents

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products include oxides of nitrogen and oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA:

Ethylene Glycol Butyl Ether	111-76-2	LD50 Oral	470 mg/kg	Rat
		LD50 Inhalation	450 ppm (4 h)	Rat
		LD50 Dermal	200 mg/kg	Rabbit

SUSPECTED CANCER AGENT: None of the components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds.

IRRITANCY OF PRODUCT: This product may be irritating to skin, eyes or respiratory system.

SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

Ethylene Glycol Butyl Ether	111-76-2	LC50	200 mg/l – 96 h	Other Fish
		EC50	1,815 m/l – 24 h	Daphnia magna

12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 OTHER ADVERSE EFFECTS:

This product is not expected to be harmful to plants, animals or aquatic life.

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, and those of Canada

SECTION 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

14.1 UN IDENTIFICATION NUMBER:

UN1760

14.2 PROPER SHIPPING NAME:

Corrosive liquids, n.o.s. (Contains EGBE)

14.3 HAZARD CLASS NUMBER and DESCRIPTION:

Class 8 - Corrosive

14.4 PACKING GROUP:

III

DOT LABEL(S) REQUIRED:

Corrosive

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 153

14.5 ENVIRONMENTAL HAZARDS: (RQ QUANTITY):

None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.6 SPECIAL PRECAUTION FOR USER: None

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are not subject to the reporting requirements of Sections 302 and 304 of Title III of the Superfund Amendments and Reauthorization Act.

The components of this product, CAS 111-76-2, are subject to the reporting requirements of Sections 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

SARA 311/312: Acute Health: Yes; Chronic Health: No; Fire: No; Reactivity: No

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None known.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is a Class E, Corrosive, and a D2B, Materials Causing Other Toxic Effects, per WHMIS Controlled Product Regulations.



SECTION 16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Chris Eigbrett – (MSDS to GHS Compliance)

DATE OF PRINTING: June 24, 2014

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Reliable Products assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Reliable Products assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET

SECTION 1. PRODUCT IDENTIFICATION

1 TRADE NAME (AS LABELED):	Reliable Spray Cleaner
SYNONYMS:	N/A
CAS#:	Mixture
1.2 PRODUCT USE:	Cleaning agent
CHEMICAL SHIPPING NAME/CLASS:	Corrosive liquids, N.O.S / Class 8 - Corrosive
U.N. NUMBER:	UN1760
1.3 NORTH AMERICA:	
MANUFACTURER'S NAME:	Reliable Products
ADDRESS:	639 Fitch Street, Oneida, NY 13421
BUSINESS PHONE:	800-932-8742
EMAIL:	spraynwipe@aol.com
WEB SITE INFORMATION:	reliableproductsonline.com
1.4 EMERGENCY PHONE NUMBERS:	1-800-424-9300 (CHEMTREC – 24 Hrs)
DATE OF CURRENT REVISION:	July 02, 2014
DATE OF LAST REVISION:	December 20, 2004

SECTION 2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a blue thin liquid with a mild odor.

Health Hazards: Corrosive: May cause serious eye damage. May be harmful if swallowed, inhaled, or in contact with skin.

Flammability Hazards: This product is a non-flammable liquid.

Reactivity Hazards: Corrosive.

Environmental Hazards: The Environmental effects of this product have not been investigated, however release may cause adverse environmental effects.

GHS Hazard Symbol(s)



CANADA (WHMIS) SYMBOL(S)



US DOT SYMBOL(S)



Signal Word: **Danger!**

2.1 GHS LABELING AND HAZARD CLASSIFICATION:

This product does meet the definition of a hazardous substance or preparation as defined by Health Canada and the OSHA (as described in 29 CFR 1910.1200(d))

Component(s) Contributing to Classification(s)

Ethylene Glycol Butyl Ether

2.2 LABEL ELEMENTS

GHS Hazard Classification(s):

- Acute toxicity, Oral Category 4
- Acute toxicity, Dermal Category 4
- Acute toxicity, Inhalation Category 4
- Skin Corrosion/Irritation Category 1B
- Serious Eye Damage Category 1

Hazard Statement(s):

- H302 Harmful if swallowed
- H332 Harmful if inhaled
- H312 Harmful in contact with skin
- H314 Causes severe skin burns and eye damage

Precautionary Statement(s)

- P260 Do not breath dusts or mists
- P264 Wash thoroughly after handling
- P270 Do not eat, drink or smoke when using this product

Storage Statement(s):

P403+P235 Store in a well-ventilated place. Keep cool

Disposal Statement(s):

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Response Statement(s):

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

SAFETY DATA SHEET

Reliable Spray Cleaner

Precautionary Statement(s) continued:

- P271 Use only outdoors or in a well-ventilated area
- P280 Use protective gloves/protective clothing/eye protection/face protection

Response Statement(s) continued:

- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a Poison Center or doctor if you feel unwell
- P362+P364 Take off contaminated clothing and wash it before reuse

2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

ACUTE:

INHALATION: Harmful if inhaled. Mist or spray may cause a burning sensation, cough, shortness of breath, or sore throat. May effect behavior, cause headaches or vomiting

CONTACT WITH SKIN: Corrosive material may cause redness, skin burns, or blisters.

EYE CONTACT: Corrosive material may cause irritation with possible burns and tissue damage.

INGESTION: Harmful if swallowed. May cause irritation or pain to the gastrointestinal tract. . May affect behavior/central nervous system

CHRONIC: Prolonged exposure to the skin may cause irritation, dryness, or cracking. Prolonged or repeated inhalation or ingestion may affect the blood, kidneys, or liver.

TARGET ORGANS: **Acute:** Skin, Eyes, Respiratory System, Central Nervous System
Chronic: Skin, blood, kidneys, liver

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPOSITION	WT. PERCENTAGE	CAS#	HAZARD CLASSIFICATION
Ethylene Glycol Butyl Ether	5 – 10%	111-76-2	[Xn] Harmful
Balance of other ingredients are non-hazardous or less than 1% in concentration (< 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).			

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If this product is swallowed, call physician or poison control center for treatment advice. Do not induce vomiting unless told to do so by a poison control center or physician. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. If transporting take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin problems may be aggravated by prolonged contact.

4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Contact with eyes may cause irritation with possible burns and tissue damage. Prolonged skin exposure may cause mild irritation or dryness. Prolonged or repeated inhalation or ingestion may cause hematuria (blood in the urine)

3 RECOMMENDATIONS TO PHYSICIANS:

Treat symptoms and eliminate overexposure.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 FIRE EXTINGUISHING MATERIALS:

Use fire extinguishing methods below:

Water Spray: Yes

Carbon Dioxide: Yes

Foam: Yes

Dry Chemical: Yes

Halon: Yes

Other: Any "C" Class

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: Yes

FLASH POINT: Not determined

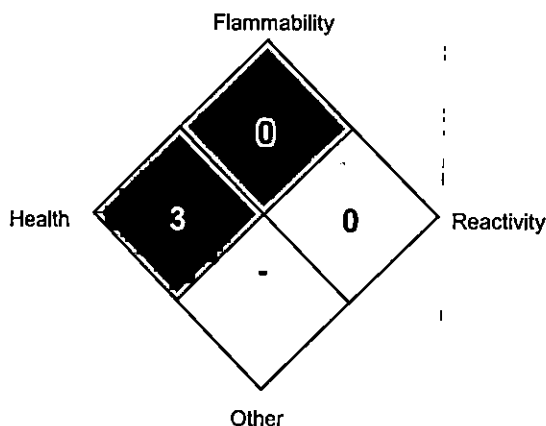
AUTOIGNITION TEMPERATURE: Not determined

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			3
FLAMMABILITY HAZARD (RED)			0
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

See Section 8.2 for Exposure Controls

6.2 ENVIRONMENTAL PRECAUTIONS:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils

6.3 SPILL AND LEAK RESPONSE:

Stop the flow of material, if this can be done safely. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces. (see Section 13, Disposal Considerations).

SECTION 7. HANDLING and STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices. When handling, do not eat, drink, or smoke. Handle in a well-ventilated work area.

! STORAGE AND HANDLING PRACTICES:

Store in original container. Keep away from: oxidizing agents. Keep in a well-ventilated area in closed containers. Protect containers from physical damage.

7.3 SPECIFIC USES:

Cleaning agent

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Ethylene Glycol Butyl Ether	111-76-2	20 ppm	50 ppm 240 mg/m ³

8.2 EXPOSURE CONTROLS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada.

RESPIRATORY PROTECTION: Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93.

EYE PROTECTION: Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Standards of Canada.

HAND PROTECTION: Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9. PHYSICAL and CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE (Physical State) and COLOR: Blue thin liquid

ODOR: Mild odor

ODOR THRESHOLD: Not Applicable

pH: 13-14

MELTING/FREEZING POINT: Not Available

BOILING POINT: 212°F (100°C)

FLASH POINT: Not Available

EVAPORATION RATE (n-BuAc=1): 1.0

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXLOSION LIMITS: Not Applicable

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

RELATIVE DENSITY: Not Available

SPECIFIC GRAVITY: 1.043

SOLUBILITY IN WATER: Complete

WEIGHT PER GALLON: Not Available

PARTITION COEFFICIENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Applicable

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available

9.2 OTHER INFORMATION:

No additional information available

SECTION 10. STABILITY and REACTIVITY

10.1 REACTIVITY:

None known

SAFETY DATA SHEET

Reliable Spray Cleaner

10.2 STABILITY:

Stable under conditions of normal storage and use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Will not occur.

10.4 CONDITIONS TO AVOID:

Contact with incompatible materials.

10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

Strong oxidizing agents

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products include oxides of nitrogen and oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA:

Ethylene Glycol Butyl Ether	111-76-2	LD50 Oral	470 mg/kg	Rat
		LD50 Inhalation	450 ppm (4 h)	Rat
		LD50 Dermal	200 mg/kg	Rabbit

SUSPECTED CANCER AGENT: None of the components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds.

IRRITANCY OF PRODUCT: This product may be irritating to skin, eyes or respiratory system.

SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

Ethylene Glycol Butyl Ether	111-76-2	LC50	200 mg/l – 96 h	Other Fish
		EC50	1,815 m/l – 24 h	Daphnia magna

12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 OTHER ADVERSE EFFECTS:

This product is not expected to be harmful to plants, animals or aquatic life.

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, and those of Canada

SECTION 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

14.1 UN IDENTIFICATION NUMBER:	UN1760
14.2 PROPER SHIPPING NAME:	Corrosive liquids, n.o.s. (Contains EGBE)
14.3 HAZARD CLASS NUMBER and DESCRIPTION:	Class 8 - Corrosive
14.4 PACKING GROUP:	III
DOT LABEL(S) REQUIRED:	Corrosive
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER:	153
14.5 ENVIRONMENTAL HAZARDS: (RQ QUANTITY):	None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.6 SPECIAL PRECAUTION FOR USER: None

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are not subject to the reporting requirements of Sections 302 and 304 of Title III of the Superfund Amendments and Reauthorization Act.

The components of this product, CAS 111-76-2, are subject to the reporting requirements of Sections 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

SARA 311/312: Acute Health: Yes; Chronic Health: No; Fire: No; Reactivity: No

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None known.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is a Class E, Corrosive, and a D2B, Materials Causing Other Toxic Effects, per WHMIS Controlled Product Regulations.



SECTION 16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

- EPA: United States Environmental Protection Agency
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Chris Eigbrett – (MSDS to GHS Compliance)

DATE OF PRINTING: June 24, 2014

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Reliable Products assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Reliable Products assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET



Ultimate Xtreme Clean All Surface Cleaner Degreaser

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 06/23/2014 Date of issue: 06/23/2014

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Ultimate Xtreme Clean All Surface Cleaner Degreaser

Product Code: 832XX

Intended Use of the Product

Use of the Substance/Mixture: Cleaner

Name, Address, and Telephone of the Responsible Party

Company

Starbrite

4041 SW 47th Avenue

Fort Lauderdale, FL 33314

(954)587-6280

www.starbrite.com

Emergency Telephone Number

Emergency number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Carc. 2 H351

Label Elements

GHS-US Labeling

Hazard Pictograms

(GHS-US)



GHS07



GHS08

Signal Word (GHS-US) :

Warning

Hazard Statements

(GHS-US)

: H315 - Causes skin irritation
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer

Precautionary

Statements (GHS-US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands, forearms and exposed areas thoroughly after handling.
P280 - Wear eye protection, protective gloves, protective clothing.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see Section 4).
P332+P337+P313 - If skin irritation occurs or eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P405+P501 - Store locked up. Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3

H402 - Harmful to aquatic life

P273 - Avoid release to the environment

Other Hazards. Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Ultimate Xtreme Clean All Surface Cleaner Degreaser

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Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Tetrasodium EDTA	(CAS No) 64-02-8	1 - 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Alcohols, C9-11, ethoxylated	(CAS No) 68439-46-3	1 - 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Diethylene glycol monobutyl ether	(CAS No) 112-34-5	1 - 5	Flam. Liq. 4, H227 Eye Irrit. 2A, H319
Nitrioltriacetic acid trisodium salt	(CAS No) 5064-31-3	0.1 - 1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Carc. 2, H351
Sodium hydroxide	(CAS No) 1310-73-2	0.1 - 1	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Irritating to eyes, respiratory system and skin.

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Suspected of causing cancer.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use carbon dioxide. Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: May be corrosive to metals over a prolonged period of contact.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water courses.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Toxic fumes are released.

Ultimate Xtreme Clean All Surface Cleaner Degreaser

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Reference to Other Sections Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow contact with metals. Do not get in eyes, on skin, or on clothing. Do NOT breathe (vapor, mist, gas).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and contain spill with inert material, then place in suitable container.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Storage areas should be periodically checked for integrity.

Incompatible Materials: Strong acids. Strong oxidizers. Metals.

Special Rules on Packaging: Store in original container.

Specific End Use(s) Cleaner.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Diethylene glycol monobutyl ether (112-34-5)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm
Manitoba	OEL TWA (ppm)	10 ppm
Newfoundland & Labrador	OEL TWA (ppm)	10 ppm
Nova Scotia	OEL TWA (ppm)	10 ppm
Prince Edward Island	OEL TWA (ppm)	10 ppm
Sodium hydroxide (1310-73-2)		
Mexico	OEL Ceiling (mg/m ³)	2 mg/m ³
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	10 mg/m ³
Alberta	OEL Ceiling (mg/m ³)	2 mg/m ³
British Columbia	OEL Ceiling (mg/m ³)	2 mg/m ³
Manitoba	OEL Ceiling (mg/m ³)	2 mg/m ³
New Brunswick	OEL Ceiling (mg/m ³)	2 mg/m ³
Newfoundland & Labrador	OEL Ceiling (mg/m ³)	2 mg/m ³
Nova Scotia	OEL Ceiling (mg/m ³)	2 mg/m ³
Nunavut	OEL Ceiling (mg/m ³)	2 mg/m ³
Northwest Territories	OEL Ceiling (mg/m ³)	2 mg/m ³
Ontario	OEL Ceiling (mg/m ³)	2 mg/m ³
Prince Edward Island	OEL Ceiling (mg/m ³)	2 mg/m ³

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Quebec	PLAFOND (mg/m ³)	2 mg/m ³
Manitoba	OEL Ceiling (mg/m ³)	2 mg/m ³
Yukon	OEL Ceiling (mg/m ³)	2 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Protective clothing. Safety glasses. Face shield. Gloves. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Corrosionproof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear
Odor	: Pleasant
Odor Threshold	: Not available
Relative Evaporation Rate (butylacetate=1)	: 12
Melting/Freezing Point	: Not available
Boiling Point	: 0 °C (32 °F)
Flash Point	: Not available
Auto-ignition Temperature	: > 100 °C (> 212 °F)
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Upper/Lower Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density/Specific Gravity	: 1.003 (water = 1)
Solubility	: Water: High
Partition coefficient: n-octanol/water	: Not available
Viscosity	: 6.5 cSt @ 100 °C (212 °F)
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: May be corrosive to metals over a prolonged period of contact.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Contact with metallic substances.

Incompatible Materials: Oxidizers. Strong acids. Alkalis and caustic products. Halogens. Metals.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Thermal decomposition generates toxic vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

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LD50 and LC50 Data: Not available
Acute Corrosion/Irritation: Causes serious eye irritation. (pH: 12; alkali reserve: 2.52)
Serious Eye Damage/Irritation: Causes skin irritation. (pH: 12; alkali reserve: 2.52)
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Suspected of causing cancer.
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: May cause respiratory irritation.
Symptoms/Injuries After Skin Contact: Causes skin irritation.
Symptoms/Injuries After Eye Contact: Causes serious eye irritation.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:	
Alcohols, C9-11, ethoxylated (68439-46-3)	
LD50 Oral Rat	1400 mg/kg
Tetrasodium EDTA (64-02-8)	
LD50 Oral Rat	1780 mg/kg
Diethylene glycol monobutyl ether (112-34-5)	
LD50 Oral Rat	3384 mg/kg
LD50 Dermal Rabbit	2700 mg/kg
Nitrilotriacetic acid trisodium salt (5064-31-3)	
LD50 Oral Rat	920 mg/kg
LD50 Inhalation Rat (mg/l)	> 5 mg/l/4h
Nitrilotriacetic acid trisodium salt (5064-31-3)	
IARC Group	2B

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	
Ecology - General: Harmful to aquatic life.	
Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])
EC50 Other Aquatic Organisms 1	1.01 mg/l (Exposure time: 72 h - Species: <i>Desmodesmus subspicatus</i>)
LC 50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
Sodium hydroxide (1310-73-2)	
LC50 Fish 1	40 mg/l
Nitrilotriacetic acid trisodium salt (5064-31-3)	
LC50 Fish 1	93 - 170 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 Daphnia 1	560 - 1000 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
LC 50 Fish 2	175 - 225 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])
Diethylene glycol monobutyl ether (112-34-5)	
LC50 Fish 1	1300 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 Other Aquatic Organisms 1	> 100 mg/l (Exposure time: 96 h - Species: <i>Desmodesmus subspicatus</i>)
Persistence and Degradability	
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Persistence and Degradability	Not established.

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Bioaccumulative Potential	
Ultimate Xtreme Clean All Surface Cleaner Degreaser	
Bioaccumulative Potential	Not established.
Diethylene glycol monobutyl ether (112-34-5)	
BCF fish 1	(no bioconcentration expected)

Mobility in Soil Not available
Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG
UN Number Not regulated for transport
UN Proper Shipping Name Not regulated for transport
Additional Information Not available
Transport by sea Not regulated for transport
Air transport Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations	
Ultimate Xtreme Clean All Surface Cleaner Degreaser	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Nitrilotriacetic acid trisodium salt (5064-31-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sodium hydroxide (1310-73-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Tetrasodium EDTA (64-02-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethylene glycol monobutyl ether (112-34-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

US State Regulations	
Alcohols, C9-11, ethoxylated (68439-46-3)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Nitrilotriacetic acid trisodium salt (5064-31-3)	
U.S. - Illinois - Toxic Air Contaminant Carcinogens	
U.S. - Illinois - Toxic Air Contaminants	
U.S. - Massachusetts - Right To Know List	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Tetrasodium EDTA (64-02-8)	
U.S. - Texas - Effects Screening Levels - Long Term	

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U.S. - Texas - Effects Screening Levels - Short Term	
Sodium hydroxide (1310-73-2)	
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute	
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)	
U.S. - Idaho - Occupational Exposure Limits - TWAs	
U.S. - Louisiana - Reportable Quantity List for Pollutants	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2	
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2	
U.S. - Massachusetts - Right To Know List	
U.S. - Massachusetts - Toxics Use Reduction Act	
U.S. - Michigan - Occupational Exposure Limits - Ceilings	
U.S. - Michigan - Polluting Materials List	
U.S. - Minnesota - Chemicals of High Concern	
U.S. - Minnesota - Hazardous Substance List	
U.S. - Minnesota - Permissible Exposure Limits - Ceilings	
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - New Jersey - Special Health Hazards Substances List	
U.S. - New York - Occupational Exposure Limits - TWAs	
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour	
U.S. - Oregon - Permissible Exposure Limits - TWAs	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour	
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual	
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations	
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories	
U.S. - Tennessee - Occupational Exposure Limits - Ceilings	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
U.S. - Vermont - Permissible Exposure Limits - Ceilings	
U.S. - Washington - Permissible Exposure Limits - Ceilings	
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet	
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet	
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater	
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet	
Diethylene glycol monobutyl ether (112-34-5)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Canadian Regulations	
Ultimate Xtreme Clean All Surface Cleaner Degreaser	
HMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Tetrasodium EDTA (64-02-8)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Nitriotriacetic acid trisodium salt (5064-31-3)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class E - Corrosive Material
Sodium hydroxide (1310-73-2)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Listed on the Canadian Ingredient Disclosure List	
WHMIS Classification	Class E - Corrosive Material
Diethylene glycol monobutyl ether (112-34-5)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATA ON DATE OF PREPARATION OR LAST REVISION

Revision date : 06/23/2014
 Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

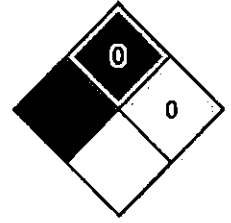
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H227	Combustible liquid
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H351	Suspected of causing cancer
H401	Toxic to aquatic life
H402	Harmful to aquatic life

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- NFPA Health Hazard** : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA Fire Hazard** : 0 - Materials that will not burn.
- NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Party Responsible for the Preparation of This Document

Starbrite®

Phone Number: (954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR
1910.1200

Version 1.0

Revision Date: 05/11/2016

Print Date: 05/12/2016

SECTION 1. IDENTIFICATION

Product name : Shell Rotella T4 Triple Protection 15W-40

Product code : 001F8880

Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**
PO Box 4427
Houston TX 77210-4427
USA

SDS Request : (+1) 877-276-7285
Customer Service :

Emergency telephone number

Spill Information : 877-504-9351
Health Information : 877-242-7400

Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : **PHYSICAL HAZARDS:**
Not classified as a physical hazard under GHS criteria.
HEALTH HAZARDS:
Not classified as a health hazard under GHS criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**
No precautionary phrases.
Response:
No precautionary phrases.
Storage:
No precautionary phrases.
Disposal:
No precautionary phrases.

Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

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Used oil may contain harmful impurities.
Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (%)
Alkaryl amine		36878-20-3	1 - 3
Calcium sulphonate		70024-69-0	0.1 - 0.99
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Not Assigned	0, - 90

SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.
Ingestion may result in nausea, vomiting and/or diarrhoea.

Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the

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incident, injury and surroundings.

Immediate medical attention, special treatment : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media : Do not use water in a jet.

Specific hazards during fire-fighting : Hazardous combustion products may include:
A complex mixture of airborne solid and liquid particulates and gases (smoke).
Carbon monoxide may be evolved if incomplete combustion occurs.
Unidentified organic and inorganic compounds.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.

Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment

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see Chapter 8 of this Safety Data Sheet.
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

- | | |
|-------------------------------|---|
| Technical measures | : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. |
| Precautions for safe handling | : Avoid prolonged or repeated contact with skin.
Avoid inhaling vapour and/or mists.
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. |
| Avoidance of contact | : Strong oxidising agents. |
| Product Transfer | : This material has the potential to be a static accumulator.
Proper grounding and bonding procedures should be used during all bulk transfer operations. |
| Storage
Other data | : Keep container tightly closed and in a cool, well-ventilated place.
Use properly labeled and closable containers.

Store at ambient temperature. |
| Packaging material | : Suitable material: For containers or container linings, use mild steel or high density polyethylene.
Unsuitable material: PVC. |
| Container Advice | : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion. |

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m3	US. ACGIH Threshold Limit Values
		(Mist)	5 mg/m3	
		TWA (Mist)	5 mg/m3	OSHA Z-1

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	TWA (Inhalable fraction)	5 mg/m3	ACGIH
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Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal

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Hand protection
Remarks

conditions of use.

In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Check with respiratory protective equipment suppliers.

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection

: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection

: Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

Protective measures

: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Environmental exposure controls

General advice

: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before

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discharge to surface water.
Local guidelines on emission limits for volatile substances
must be observed for the discharge of exhaust air containing
vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
pH	: Not applicable
pour point	: -45 °C / -49 °F Method: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)
Flash point	: 234 °C / 453 °F Method: ASTM D92
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)
Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0.878 (15 °C / 59 °F)
Density	: 878 kg/m ³ (15.0 °C / 59.0 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Pow: > 6 (based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F

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Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 14.9 mm ² /s (100 °C / 212 °F) Method: ASTM D445
Explosive properties	: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.
Decomposition temperature	: Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidising agents.
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment	: Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
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Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity	: LD50 (rat): > 5,000 mg/kg Remarks: Expected to be of low toxicity:
Acute inhalation toxicity	: Remarks: Not considered to be an inhalation hazard under normal conditions of use.
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg

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Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Components:

Calcium sulphonate:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Reproductive toxicity

Product:

: Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

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STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.
Information given is based on a knowledge of the components and the ecotoxicology of similar products.
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Ecotoxicity

Product:

Toxicity to fish (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to algae (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

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Toxicity to bacteria (Acute toxicity)

: Remarks: Data not available

Persistence and degradability

Product:

Biodegradability

: Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bioaccumulative potential

Product:

Bioaccumulation

: Remarks: Contains components with the potential to bioaccumulate.

Mobility in soil

Product:

Mobility

: Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

Other adverse effects

no data available

Product:

Additional ecological information

: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Poorly soluble mixture.

May cause physical fouling of aquatic organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local regulations may be more stringent than regional or na-

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Contaminated packaging	tional requirements and must be complied with. : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.
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SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulation

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category	: Not applicable
Ship type	: Not applicable
Product name	: Not applicable
Special precautions	: Not applicable

Special precautions for user

Remarks	: Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.
---------	--

Additional Information	: MARPOL Annex 1 rules apply for bulk shipments by sea.
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SECTION 15. REGULATORY INFORMATION

California Prop 65	: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
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The components of this product are reported in the following inventories:

EINECS	: All components listed or polymer exempt.
TSCA	: All components listed.
DSL	: All components listed.

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SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity) 0, 1, 0

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut für Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of

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Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HPVS = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

Revision Date : 05/11/2016

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Startron Enzyme Fuel Treatment - Gas

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 08/06/2018

Date of Issue: 06/24/2016

Supersedes date: 05/31/2018

Version: 3.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Startron Enzyme Fuel Treatment - Gas

Product Code: 930XX

Intended Use of the Product

Use Of The Substance/Mixture: Fuel Additive

Name, Address, and Telephone of the Responsible Party

Company

Star brite® Inc.

4041 SW 47th Avenue

Fort Lauderdale, FL 33314

(954) 587-6280

www.starbrite.com

Emergency Telephone Number

Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 4 H227

Asp. Tox. 1 H304

Full text of hazard classes and H-statements : see section 16

Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H227 - Combustible liquid.

H304 - May be fatal if swallowed and enters airways.

Precautionary Statements (GHS-US/CA)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.

P403 - Store in a well-ventilated place.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3 H402

Aquatic Chronic 3 H412

H402 - Harmful to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

P273 - Avoid release to the environment.

This material or its emissions may defat skin, cause contact dermatitis, or aggravate existing skin disease - may cause skin dryness or cracking. Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

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Unknown Acute Toxicity (GHS-US/CA)

data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Petroleum distillates, hydrotreated light	(CAS-No.) 64742-47-8	90 - 95	Asp. Tox. 1, H304
Petroleum distillates, hydrotreated light	(CAS-No.) 64742-47-8	< 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Prevention: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: May be fatal if swallowed and enters airways.

Inhalation: Prolonged exposure may cause irritation.

Skin Contact: Repeated or prolonged skin contact may cause irritation. Repeated or prolonged skin contact may cause dermatitis and defatting.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury. The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Chronic Symptoms: None known.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible liquid.

Explosion Hazard: May form flammable or explosive vapor-air mixture. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

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Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not breathe fumes from fires or vapors from decomposition.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrocarbons.

Other Information: This product does not sustain combustion according to ASTM D 4206. Do not allow run-off from firefighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing (vapor, mist, spray). Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Eliminate ignition sources. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools. Contact competent authorities after a spill.

Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. This product does not sustain combustion according to ASTM D 4206. Repeated or prolonged skin contact may cause dermatitis and defatting.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools. Use appropriate personal protective equipment (PPE).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Keep in fireproof place.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Specific End Use(s)

Fuel Additive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

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Petroleum distillates, hydrotreated light (64742-47-8)

fish Columbia

OEL TWA (mg/m³)

200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures)

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flamm resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Colorless, transparent liquid
Odor	: Characteristic
Color Threshold	: Not available
Fluorescence	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 148 - 290 °C (298.4 - 554 °F)
Flash Point	: > 79 °C (174.2 °F) (Does not sustain combustion according to ASTM D 4206)
Auto-ignition Temperature	: 215 - 220 °C (419 - 428 °F)
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: 0.6 %
Upper Flammable Limit	: 6 %
Vapor Pressure	: 0.1 mm Hg @ 20 °C
Relative Vapor Density at 20°C	: 4.5 - 5 (air=1)
Relative Density	: Not available
Specific Gravity	: 0.795 - 0.803 @ 15 °C
Solubility	: Water: Negligible
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Viscosity, Kinematic	: 1.8 - 1.92 cSt @ 40 °C
VOC content	: 100 %

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

Chemical Stability: Combustible liquid. May form flammable or explosive vapor-air mixture.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

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Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

Compatible Materials: Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause irritation. Repeated or prolonged skin contact may cause dermatitis and defatting.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury. The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Chronic Symptoms: None known.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Petroleum distillates, hydrotreated light (64742-47-8)

LD50 Oral Rat > 5000 mg/kg

LD50 Dermal Rabbit > 2000 mg/kg

LC50 Inhalation Rat > 5.2 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Petroleum distillates, hydrotreated light (64742-47-8)

LC50 Fish 1 45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

LC50 Fish 2 2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Persistence and Degradability

Starbrite Startron Diesel Fuel Additive

Persistence and Degradability May cause long-term adverse effects in the environment.

Bioaccumulative Potential

Starbrite Startron Diesel Fuel Additive

Bioaccumulative Potential Not established.

Petroleum distillates, hydrotreated light (64742-47-8)

CF Fish 1 61 - 159

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Mobility in Soil Not available

her Adverse Effects

her Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with DOT Not regulated for transport - Does not sustain combustion according to ASTM D 4206

Marine Pollutant: No

In Accordance with IMDG Not regulated for transport

In Accordance with IATA Not regulated for transport

In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Starbrite Startron Diesel Fuel Additive	
SARA Section 311/312 Hazard Classes	Health hazard - Aspiration hazard Physical hazard - Flammable (gases, aerosols, liquids, or solids)
Petroleum distillates, hydrotreated light (64742-47-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

State Regulations

Petroleum distillates, hydrotreated light (64742-47-8)	
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour	
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	

Canadian Regulations

Petroleum distillates, hydrotreated light (64742-47-8)	
Listed on the Canadian DSL (Domestic Substances List)	

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 08/06/2018

Revision

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3

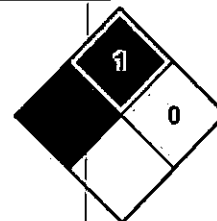
Startron Enzyme Fuel Treatment - Gas

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

H226	Flammable liquid and vapor
H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

- NFPA Health Hazard** : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA Fire Hazard** : 1 - Materials that must be preheated before ignition can occur.
- NFPA Reactivity Hazard** : 0 - Material that in themselves are normally stable, even under fire conditions.



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US, Mex)

SAFETY DATA SHEET

Issue Date 01-Jul-2021

Revision Date 01-Jul-2021

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name SPLENDIDE PREMIUM LAUNDRY POWDER

Other means of identification

Product Code WS 1022

Recommended use of the chemical and restrictions on use

Recommended Use Laundry Detergent.
Uses advised against Use only as stated on label.

Details of the supplier of the safety data sheet

Supplier Westland Sales
15650 SE 102nd Ave
Clackamas Oregon, 97015
Phone: (503) 655-2563

Emergency telephone number

Emergency Telephone (503) 655-2563

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

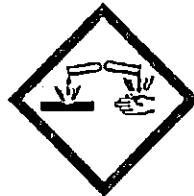
Acute toxicity - Oral	Category 5
Acute toxicity - Dermal	Not classified
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements
May be harmful if swallowed
Causes serious eye damage



Appearance Dry, free flowing granules

Physical state Powder

Odor Citrus

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Call a POISON CENTER or doctor/physician if you feel unwell
Specific Treatment (See Section 4 on the SDS)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium Carbonate	497-19-8	30-60	*
Sodium Sulfate	7757-82-6	10-30	*
Sodium Percarbonate	15630-89-4	10-30	*
Sodium Silicate	1344-09-8	5-10	*
Alcohol Ethoxylate	68439-46-3	1-5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice

Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. If symptoms persist, call a physician.

Skin Contact

Consult a physician if necessary. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes Keep eye wide open while rinsing If symptoms persist, call a physician

Inhalation

Remove to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion

Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.

Self-protection of the first aider

Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms

No Information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No Information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eyeface protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear chemical resistant gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Powder		
Appearance	Dry, free flowing granules		
Odor	Citrus	Odor threshold	No Information available
Property	Values	Remarks • Method	
pH	10.0 - 11.0	1% solution	
Melting point/freezing point	No Information available		
Boiling point / boiling range	No Information available		
Flash point	None		
Evaporation rate	No Information available		
Flammability (solid, gas)	No Information available		
Flammability Limits in Air			
Upper flammability limit:	No Information available		
Lower flammability limit:	No Information available		
Vapor pressure	No Information available		
Vapor density	No Information available		
Specific Gravity	No Information available		
Water solubility	No Information available		
Solubility in other solvents	No Information available		
Partition coefficient	No Information available		
Autoignition temperature	No Information available		
Decomposition temperature	No Information available		
Kinematic viscosity	No Information available		
Viscosity	No Information available		
Explosive properties	No Information available		
Oxidizing properties	No Information available		

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Carbonate 497-19-8	= 4090 mg/kg (Rat)	-	-
Orange Terpenes 5989-27-5	= 4400 mg/kg (Rat) = 5200 mg/kg (Rat) = 5300 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No Information available.
Germ cell mutagenicity No Information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

IARC (International Agency for Research on Cancer)
 Group 3 -Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Reproductive toxicity No Information available.
STOT - single exposure No Information available.
STOT - repeated exposure No Information available.
Chronic toxicity Avoid repeated exposure.
Aspiration hazard No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity
 The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Carbonate	-	310 - 1220: 96 h Pimephales	265: 48 h Daphnia magna mg/L

497-19-8			promelas mg/L LC50 static 300: 96 h Lepomis macrochirus mg/L LC50 static		EC50
Sodium Sulfate 7757-82-6		-	13500 - 14500: 96 h Pimephales promelas mg/L LC50 3040 - 4380: 96 h Lepomis macrochirus mg/L LC50 static 13500: 96 h Lepomis macrochirus mg/L LC50 6800: 96 h Pimephales promelas mg/L LC50 static	2564: 48 h	Daphnia magna mg/L EC50
Sodium Percarbonate 15630-89-4		-	70.7: 96 h Pimephales promelas mg/L LC50 static	4.9: 48 h	Daphnia pulex mg/L EC50
Sodium Silicate 1344-09-8		-	301 - 478: 96 h Lepomis macrochirus mg/L LC50 3185: 96 h Brachydanio rerio mg/L LC50 semi-static		-
Orange Terpenes 5989-27-5		-	0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50		-

Persistence and degradability
No Information available.

Bioaccumulation
No Information available.

Other adverse effects No Information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Does not comply
AICS Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Orange Terpenes 5989-27-5	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection N/A

Issue Date 01-Jul-2021
 Revision Date 01-Jul-2021
 Revision Note
 No Information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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1910.1200

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SECTION 1. IDENTIFICATION

Product name : Shell Rotella T4 Triple Protection 15W-40

Product code : 001F8880

Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**
PO Box 4427
Houston TX 77210-4427
USA

SDS Request : (+1) 877-276-7285
Customer Service :

Emergency telephone number

Spill Information : 877-504-9351
Health Information : 877-242-7400

Recommended use of the chemical and restrictions on use
Recommended use : Engine oil.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : **PHYSICAL HAZARDS:**
Not classified as a physical hazard under GHS criteria.
HEALTH HAZARDS:
Not classified as a health hazard under GHS criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**
No precautionary phrases.
Response:
No precautionary phrases.
Storage:
No precautionary phrases.
Disposal:
No precautionary phrases.

Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

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Used oil may contain harmful impurities.
Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (%)
Alkaryl amine		36878-20-3	1 - 3
Calcium sulphonate		70024-69-0	0.1 - 0.99
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Not Assigned	0 - 90

SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.
Ingestion may result in nausea, vomiting and/or diarrhoea.

Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the

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incident, injury and surroundings.

Immediate medical attention,
special treatment : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media : Do not use water in a jet.

Specific hazards during fire-fighting : Hazardous combustion products may include:
A complex mixture of airborne solid and liquid particulates and gases (smoke).
Carbon monoxide may be evolved if incomplete combustion occurs.
Unidentified organic and inorganic compounds.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.

Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment

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see Chapter 8 of this Safety Data Sheet.
For guidance on disposal of spilled material see Chapter 13 of
this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

- Technical measures** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Precautions for safe handling** : Avoid prolonged or repeated contact with skin.
Avoid inhaling vapour and/or mists.
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
- Avoidance of contact** : Strong oxidising agents.
- Product Transfer** : This material has the potential to be a static accumulator.
Proper grounding and bonding procedures should be used during all bulk transfer operations.
- Storage**
Other data : Keep container tightly closed and in a cool, well-ventilated place.
Use properly labeled and closable containers.

Store at ambient temperature.
- Packaging material** : Suitable material: For containers or container linings, use mild steel or high density polyethylene.
Unsuitable material: PVC.
- Container Advice** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m3	US. ACGIH Threshold Limit Values
		(Mist)	5 mg/m3	OSHA_TRANS
		TWA (Mist)	5 mg/m3	OSHA Z-1

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TWA (Inhalable fraction)

5 mg/m3

ACGIH

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal

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Hand protection
Remarks

conditions of use.

In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Check with respiratory protective equipment suppliers.

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection

: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection

: Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

Protective measures

: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Environmental exposure controls

General advice

: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before

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discharge to surface water.
Local guidelines on emission limits for volatile substances
must be observed for the discharge of exhaust air containing
vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
pH	: Not applicable
pour point	: -45 °C / -49 °F Method: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)
Flash point	: 234 °C / 453 °F Method: ASTM D92
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)
Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0.878 (15 °C / 59 °F)
Density	: 878 kg/m ³ (15.0 °C / 59.0 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Pow: > 6 (based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F

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Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 14.9 mm ² /s (100 °C / 212 °F) Method: ASTM D445
Explosive properties	: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.
Decomposition temperature	: Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidising agents.
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage..

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment	: Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
Information on likely routes of exposure	
Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.	
Acute toxicity	
Product:	
Acute oral toxicity	: LD50 (rat): > 5,000 mg/kg Remarks: Expected to be of low toxicity:
Acute inhalation toxicity	: Remarks: Not considered to be an inhalation hazard under normal conditions of use.
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg

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Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Components:

Calcium sulphonate:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Reproductive toxicity

Product:

: Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

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STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.
Information given is based on a knowledge of the components and the ecotoxicology of similar products.
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Ecotoxicity

Product:

Toxicity to fish (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to algae (Acute toxicity) : Remarks: Expected to be practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

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Toxicity to bacteria (Acute toxicity)

: Remarks: Data not available

Persistence and degradability

Product:

Biodegradability

: Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bioaccumulative potential

Product:

Bioaccumulation

: Remarks: Contains components with the potential to bioaccumulate.

Mobility in soil

Product:

Mobility

: Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

Other adverse effects

no data available

Product:

Additional ecological information

: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Poorly soluble mixture.

May cause physical fouling of aquatic organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or na-

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Contaminated packaging : tional requirements and must be complied with.
: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulation

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable
Special precautions : Not applicable

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Additional Information : MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.
TSCA : All components listed.
DSL : All components listed.

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SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity) 0, 1, 0

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut für Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of

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Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HP V = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

Revision Date : 05/11/2016

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

MATERIAL SAFETY DATA SHEET
CONCROBIUM MOLD STAIN ERASER

SECTION I: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mold Stain Eraser	PRODUCT USE: Cleans and removes stains
MANUFACTURER: Siamons International	SUPPLIER: Siamons International
ADDRESS: 48 Galaxy Blvd Toronto, Ontario, Canada. M9W 6C8	ADDRESS: 48 Galaxy Blvd Toronto, Ontario, Canada. M9W 1A4.
EMERGENCY : 416 213 0219	EMERGENCY : 416 213 0219 Or call poison control centre listed in white pages.

SECTION II: INGREDIENT INFORMATION

Ingredients	CAS#	Wt%	OSHA-TWA	ACGIH-TWA	LD ₅₀
Sodium bicarbonate	144-55-8	1-5	10 mg/m ³ dust resp	10 mg/m ³ dust resp	3360 mg/kg (oral/rat)
Sodium Percarbonate	15630-89-4	60-100	10 mg/m ³ dust resp	10 mg/m ³ dust resp	2400 mg/kg (oral/rat)
tetra acetyl ethylene diamine	10543-57-4	15-35	10 mg/m ³ dust resp	10 mg/m ³ dust resp	2400 mg/kg (oral/rat)

SECTION III: HAZARDOUS IDENTIFICATION

Inhalation:	Remove the subject from dusty environment. Consult a physician in case of respiratory symptoms.
Eyes:	Flush eyes as soon as possible with running water for 15 minutes, while keep in the eyelids open. In case of difficulty opening lids, administer analgesic eye-wash (oxybuprocaine). Consult an ophthalmologist in all cases.
Skin:	Remove contaminated shoes, socks and clothing; wash the affected skin with running water. Consult a physician in case of persistent pain or redness.
Ingestion:	Consult a physician immediately in all cases.
If the subject is completely conscious:	Rinse and administer fresh water. Do not induce vomiting.
If the subject is unconscious:	NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Loosen collar and tight clothing; lay the victim on his/her left side. Keep warm (blanket).
Chronic Effects	
Carcinogenicity:	No ingredients listed IARC or NTP or ACGIC. Non hazardous by WHIMIS/OSHA criteria.
Teratogenicity, Mutagenicity, Reproductive Effects:	The ingredients in this product were found not to be mutagenic when tested by the Ames Assay, (OECD Guidelines for chemical testing, sec.471)

SECTION IV: FIRST AID MEASURES

Eye Contact:	Immediately flush with water for 15 minutes. Holding eyelids open during flushing. If irritation persists, repeat flushing and obtain medical attention immediately.
Skin Contact :	Flush with water. Seek medical attention if irritation persists. Remove contaminated clothing and launder before reuse.
Inhalation:	Move victim to fresh air. If conscious, have victim take deep, slow breaths. Seek medical attention if symptoms persist.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth with water, then drink one glass of water. Seek medical attention. Do not give anything to victim if unconscious or convulsing.

MATERIAL SAFETY DATA SHEET
CONCROBIUM MOLD STAIN ERASER

SECTION V: FIRE FIGHTING MEASURES

Flammability: Non flammable.
Flash Point deg (C,TCC) : Not Applicable

Means of Extinction: As appropriate for surrounding fire. Use water, dry chemical, carbon dioxide or foam
Special Fire Hazards: Fire fighters should wear self contained breathing apparatus as for surrounding fire. Oxygen released on exothermic decomposition may support combustion in case of surrounding fire.

Autoignition temperature: Not applicable.
Flame propagation or burning rate of solid: Not applicable
Sensitivity to static discharge: Not applicable

Unusual Fire and Explosion Hazards, None expected. As per surrounding fire.
Hazardous decomposition products: Oxides of carbon, oxides of nitrogen.

SECTION VI: ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures: Before attempting clean up, refer to the hazard data provided above. Small spills may be swept up and placed in impervious bag and disposed of in regular garbage. For large spills sweep up and place in container with lid and dispose of in accordance to local, State or Provincial and Federal regulations.

SECTION VII: HANDLING AND STORAGE

Storage Requirements: KEEP OUT OF REACH OF CHILDREN. Store in a closed container away from incompatible materials which include acids, oxidizing materials, reducing sugars and Ammonia Salts.
 Storage temperature C Ambient to 35 C
 Transport temperature C Ambient to 35 C
 Keep container closed. Handle and open container with care. Store in a well ventilated place away from incompatible materials. Do not store near open flame.
 Do not reuse empty containers.

SECTION VIII: EXPOSURE CONTROL/PERSONAL PROTECTION

Gloves: Impervious gloves are recommended
Eye Protection: Splash goggles are recommended if eye contact is possible.
Respiratory Protection: Not normally required if good ventilation is maintained
Other Protective Equipment: As required by employer code. Eye bath, safety shower, protective clothing.
Engineering Controls: General ventilation normally required

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (deg C)	100	Bulk Density	0.9-1.0 gr/cc	Evaporation Rate (water=1):	Not applicable
% Volatile (Wt%):	Not established	Solubility in water:	Complete	pH (as supplied):	Not applicable
Physical State:	powder	Viscosity:	Not applicable		
Appearance / Odour:	White free flowing powder typical odour				

MATERIAL SAFETY DATA SHEET
CONCROBIUM MOLD STAIN ERASER

SECTION X: STABILITY AND REACTIVITY

Conditions for Chemical Instability: Stable
Incompatible Materials: Strong reducing agents, strong acids.
Hazardous Decomposition Products: Oxygen released on exothermic decomposition may support combustion in case of surrounding fire.

SECTION XI: TOXICOLOGICAL INFORMATION

See Section II for LD 50 for individual components.

SECTION XII: ECOLOGICAL INFORMATION

Sodium bicarbonate:
96-hour LC50 = 265 - 565 mg/L (daphnia magna) (low toxicity)
96-hour LC50 = 300 - 320 mg/L (bluegill sunfish) (low toxicity)

Sodium Percarbonate:
Fish, Pimephales promelas; LC50, 70.7 mg/L.
Fish, Pimephales promelas; NOEC, 96 hours, 1 mg/L.
Crustaceans, Daphnia pulex; EC50, 4.9 mg/L.
Crustaceans, Daphnia pulex; NOEC, 48 hours, 1 mg/L.

Tetraacetythylenediamine is classified as readily biodegradable.
C.O.D. value 940 O₂/g (dichromate method).

Full formulation would be expected to have the following:
No bioaccumulation.
Abiotic degradation.
Low toxicity of degradation products.

SECTION XIII: DISPOSAL CONSIDERATIONS

Dispose of in accordance to all local, provincial/state and federal regulations.

SECTION XIV: TRANSPORTATION

Ground Canada: (1 KG and smaller)
Classified as **Limited Quantity**.
Refer to **TDG regulations** (Canadian Transportation of Dangerous Goods regulations).
Ground USA: (1 KG and smaller)
Classified as **Limited Quantity**. Refer to USA CFR 49 Regulations.
Meets **ORM-D** label requirement.

SECTION XV: REGULATORY INFORMATION

Occupational Health and Safety Regulations:
WHMIS Class: Class D Division 2B ,Class C Oxidizing material.
OSHA & WHMIS: MSDS prepared pursuant to the Hazard Communication Standard (CFR29.1920.1200) and Canadian WHMIS regulations
None of these ingredients are listed
Canadian Domestic Substance List (DSL): All ingredients are registered on the DSL
National Regulations (US)
TSCA Inventory 8(b): Yes.
SARA Title III Sec. 302/303 Extremely Hazardous Substances (40 CFR 355): No.
SARA Title III Sec. 311/312 (40 CFR 370):
Hazard Category Yes, Fire Hazard.
Threshold planning quantity - 10,000 lbs.
SARA Title III Sec. 313 Toxic Chemical Emissions Reporting (40 CFR 372): No.

MATERIAL SAFETY DATA SHEET
CONCROBIUM MOLD STAIN ERASER

CERCLA Hazardous Substance (40 CFR Part 302)
Listed: No.
Unlisted Substance: Yes, Reportable Quantity 100 lbs.
Characteristic: Ignitability (D001).

SECTION XVI: OTHER INFORMATION

Date:	29 January 2012	Prepared By:	Technical Services Group	Telephone:	416 213 0219
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Disclaimer:

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond the control of supplier, it is assumed that users of this material; have been fully trained according to the mandatory requirements of WHMIS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries for consequential damages, which may result from the use or reliance on any information contained in this form. If user requires independent information on ingredients in this or other material, we recommend contact with the Canadian Centre for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (905-572-4400) or CSST on Montreal, Quebec (514-873-3990).



Sikaflex®-221

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SECTION 1. IDENTIFICATION

Product name : Sikaflex®-221

Company name : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory sensitization : Category 1

Skin sensitization : Category 1

Carcinogenicity (Inhalation) : Category 1A

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2

GHS label elements

Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



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Precautionary Statements

H350 May cause cancer by inhalation.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist or vapors.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Other hazards

Intentional misuse by deliberate concentration and inhalation of vapor may be harmful or fatal.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
xylene	1330-20-7	Flam. Liq. 3; H226	$\geq 1 - < 5$



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			Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	
4,4'-methylenediphenyl diisocyanate	101-68-8		Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2B; H320 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 STOT RE 2; H373	>= 0.1 - < 1
ethylbenzene	100-41-4		Flam. Liq. 2; H225 Acute Tox. 4; H332 Carc. 2; H351 STOT RE 2; H373 Asp. Tox. 1; H304 Eye Irrit. 2A; H319	>= 0.1 - < 1
Quartz (SiO2) >5µm	14808-60-7		Carc. 1A; H350 STOT RE 1; H372 STOT SE 3; H335	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and : Asthmatic appearance
Allergic reactions



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delayed

sensitizing effects
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause cancer by inhalation.
May cause damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician

: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information

: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters

: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: Use personal protective equipment.
Deny access to unprotected persons.

Environmental precautions

: Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling

: Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being



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used.
Smoking, eating and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Store in original container.
Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
xylene	1330-20-7	TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	20 ppm	ACGIH
		STEL	150 ppm 655 mg/m3	OSHA P0
4,4'-methylenediphenyl diisocyanate	101-68-8	TWA	100 ppm 435 mg/m3	OSHA P0
		C	0.02 ppm 0.2 mg/m3	OSHA Z-1
		C	0.02 ppm 0.2 mg/m3	OSHA P0
ethylbenzene	100-41-4	TWA	0.005 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
Quartz (SiO2) >5µm	14808-60-7	TWA	20 ppm	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3	ACGIH
		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (respirable dust)	0.1 mg/m3	OSHA P0



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		fraction)		
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
		PEL (respirable)	0.05 mg/m3	OSHA CARC
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable particulate matter)	0.025 mg/m3	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.



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Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste
Color : various
Odor : aromatic
Odor Threshold : No data available
pH : Not applicable
Melting point/range / Freezing point : No data available
Boiling point/boiling range : No data available
Flash point : Not applicable
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit / Upper flammability limit : No data available
Lower explosion limit / Lower flammability limit : No data available
Vapor pressure : 0.01 hpa
Relative vapor density : No data available
Density : ca. 1.28 g/cm³ (73 °F / 23 °C)
Solubility(ies)
Water solubility : insoluble
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Autoignition temperature : No data available



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- Decomposition temperature : No data available
- Viscosity
 - Viscosity, dynamic : No data available
 - Viscosity, kinematic : > 20.5 mm²/s (104 °F / 40 °C)
- Explosive properties : No data available
- Oxidizing properties : No data available
- Volatile organic compounds (VOC) content : 25 g/l

SECTION 10. STABILITY AND REACTIVITY

- Reactivity : No dangerous reaction known under conditions of normal use.
- Chemical stability : The product is chemically stable.
- Possibility of hazardous reactions : Stable under recommended storage conditions.
- Conditions to avoid : No data available
- Incompatible materials : No data available
- Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Components:

xylene:

Acute oral toxicity : LD50 Oral (Rat): 3,523 mg/kg

4,4'-methylenediphenyl diisocyanate:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 1.5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgment



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ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 5,510 mg/kg

Skin corrosion/irritation

Not classified due to lack of data.

Serious eye damage/eye irritation

Not classified due to lack of data.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

May cause cancer by inhalation.

IARC	Group 1: Carcinogenic to humans	
	Quartz (SiO ₂)	14808-60-7
	(Silica dust, crystalline)	
	Group 2B: Possibly carcinogenic to humans	
	Titanium dioxide (> 10 µm)	13463-67-7
OSHA	Group 2B: Possibly carcinogenic to humans	
	Carbon black	1333-86-4
	Group 2B: Possibly carcinogenic to humans	
NTP	ethylbenzene	100-41-4
	OSHA specifically regulated carcinogen	
OSHA	Quartz (SiO ₂)	14808-60-7
	(crystalline silica)	
	Known to be human carcinogen	
NTP	Quartz (SiO ₂)	14808-60-7
	(Silica, Crystalline (Respirable Size))	

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure if inhaled.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.



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Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks

: Carbon black (1333-86-4)

Animal Toxicity:

Rat, oral, duration 2 year

Effect: no tumors

Mouse, oral, duration 2 years

Effect: no tumors

Mouse, dermal, duration 18 months

Effect: no skin tumors

Rat, inhalation, duration 2 years

Target organ: lungs

Effect: inflammation, fibrosis, tumors

Note: Tumors in the rat lung are considered to be related to the "particle overload phenomenon" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific. Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions. Mortality studies (human data): A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study) found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (DEll, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010). Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington. Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in



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humans has been demonstrated.

IARC CANCER CLASSIFICATION: In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans" (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

ICGIH CANCER CLASSIFICATION: Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

ASSESSMENT: Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rats tumors are a result of a secondary non-genotoxic mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity - Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase the risk to carcinogenicity.

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been charac-



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terized as a potential carcinogen by either NTP or OSHA.

Quartz (14808-60-7): This classification is relevant when exposed to Quartz (silicon dioxide) in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

xylene:

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l
Exposure time: 56 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia): 1.17 mg/l
Exposure time: 7 d

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.



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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA list : All chemical substances in this product are either listed as active on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

The following substance(s) is/are subject to a Significant New Use Rule:
 m-tolylidene diisocyanate 26471-62-5 See 40 CFR § 721.10789; Proposed Rule

No substances are subject to TSCA 12(b) export notification requirements.

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)
xylene	1330-20-7	100

SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
 Carcinogenicity
 Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

xylene	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):
 xylene 1330-20-7 >= 1 - < 5 %



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California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer, and 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA CARC	:	OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
OSHA CARC / PEL	:	Permissible exposure limit (PEL)
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA P0 / C	:	Ceiling limit
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-1 / C	:	Ceiling
OSHA Z-3 / TWA	:	8-hour time weighted average

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

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SECTION 1. IDENTIFICATION

Product name : Sikaflex®-252

Company name : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory sensitization : Category 1

Skin sensitization : Category 1

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

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Precautionary Statements : **Prevention:**
 P260 Do not breathe mist or vapors.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves.
 P284 Wear respiratory protection.

Response:
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Other hazards

Intentional misuse by deliberate concentration and inhalation of vapor may be harmful or fatal.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
xylene	1330-20-7	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	$\geq 1 - < 5$
ethylbenzene	100-41-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304 Eye Irrit. 2A; H319	$\geq 0.1 - < 1$

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4,4'-methylenediphenyl diisocyanate	101-68-8	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2B; H320 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 STOT RE 2; H373	>= 0.1 - < 1
Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane	Not Assigned	Skin Sens. 1A; H317	>= 0.1 - < 1
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	Acute Tox. 1; H330 Skin Corr. 1C; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : sensitizing effects
Asthmatic appearance
Allergic reactions
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause damage to organs through prolonged or repeated exposure if inhaled.

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Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Deny access to unprotected persons.

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

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Store in accordance with local regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
xylene	1330-20-7	TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	20 ppm	ACGIH
		STEL	150 ppm 655 mg/m3	OSHA P0
ethylbenzene	100-41-4	TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
4,4'-methylenediphenyl diisocyanate	101-68-8	TWA	20 ppm	ACGIH
		TWA	0.005 ppm	ACGIH
		C	0.02 ppm 0.2 mg/m3	OSHA Z-1
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	C	0.02 ppm 0.2 mg/m3	OSHA P0
		TWA	0.005 ppm	OSHA P0
		STEL	0.02 ppm	OSHA P0

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration

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(gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : paste
- Color : various
- Odor : characteristic
- Odor Threshold : No data available
- pH : Not applicable
- Melting point/range / Freezing point : No data available
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit / Upper flammability limit : No data available
- Lower explosion limit / Lower flammability limit : No data available

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Vapor pressure	:	0.01 hpa
Relative vapor density	:	No data available
Density	:	ca. 1.2 g/cm ³ (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm ² /s (104 °F / 40 °C)
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Volatile organic compounds (VOC) content	:	50 g/l

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified due to lack of data.

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Components:

xylene:

Acute oral toxicity : LD50 Oral (Rat): 3,523 mg/kg

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 5,510 mg/kg

4,4'-methylenediphenyl diisocyanate:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 1.5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgment

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:

Acute oral toxicity : LD50 Oral (Rat): 4,814 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.031 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 7,000 mg/kg

Skin corrosion/irritation

Not classified due to lack of data.

Serious eye damage/eye irritation

Not classified due to lack of data.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

IARC Group 2B: Possibly carcinogenic to humans
Titanium dioxide (> 10 µm)
Group 2B: Possibly carcinogenic to humans

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Carbon black 1333-86-4
Group 2B: Possibly carcinogenic to humans
ethylbenzene 100-41-4

OSHA Not applicable

NTP Not applicable

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure if inhaled.
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks

: Carbon black (1333-86-4)

Animal Toxicity:

Rat, oral, duration 2 year

Effect: no tumors

Mouse, oral, duration 2 years

Effect: no tumors

Mouse, dermal, duration 18 months

Effect: no skin tumors

Rat, inhalation, duration 2 years

Target organ: lungs

Effect: inflammation, fibrosis, tumors

Note: Tumors in the rat lung are considered to be related to the "particle overload phenomenon" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific. Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions. Mortality studies (human data): A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk

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but, like the Sorohan, 2001 (UK study) found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (DEll, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010). Since the IARC evaluation of carbon black, Sorohan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorohan and Harrington. Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

IARC CANCER CLASSIFICATION: In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans" (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

ICGIH CANCER CLASSIFICATION: Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

ASSESSMENT: Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rats tumors are a result of a secondary non-genotoxic mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity - Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase

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the risk to carcinogenicity.

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

xylene:

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l
Exposure time: 56 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia): 1.17 mg/l
Exposure time: 7 d

Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Persistence and degradability

No data available

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Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA list : All chemical substances in this product are either listed as active on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)
xylene	1330-20-7	100

SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
 Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

xylene	1330-20-7	>= 1 - < 5 %
ethylbenzene	100-41-4	>= 0.1 - < 1 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):
 xylene 1330-20-7 >= 1 - < 5 %

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer, and 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- ACGIH / TWA : 8-hour, time-weighted average
- OSHA P0 / TWA : 8-hour time weighted average
- OSHA P0 / STEL : Short-term exposure limit
- OSHA P0 / C : Ceiling limit
- OSHA Z-1 / TWA : 8-hour time weighted average
- OSHA Z-1 / C : Ceiling

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor

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does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

Revision Date 10/31/2023

100000004585

US / Z8



SECTION 1. IDENTIFICATION

Product name : Sikaflex®-715

Company name : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION


GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization : Category 1

Carcinogenicity (Inhalation) : Category 1A

Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H317 May cause an allergic skin reaction.
H350 May cause cancer by inhalation.
H360 May damage fertility or the unborn child.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.



P261 Avoid breathing mist or vapors.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Muta. 2; H341 Repr. 1B; H360 STOT SE 1; H370 STOT RE 1; H372	$\geq 0.1 - < 1$
1,2,3,4-Butanetetracarboxylic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol and 3-hydroxy-2,2-dimethylpropanal, 1,2,2,6,	101357-36-2	Acute Tox. 4; H302 Eye Irrit. 2A; H319 Skin Sens. 1; H317	$\geq 0.1 - < 1$
Quartz (SiO ₂) >5µm	14808-60-7	Carc. 1A; H350 STOT RE 1; H372 STOT SE 3; H335	$\geq 0.1 - < 1$

Actual concentration is withheld as a trade secret



SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : sensitizing effects
toxic effects for reproduction
Allergic reactions
May cause an allergic skin reaction.
May cause cancer by inhalation.
May damage fertility or the unborn child.
- Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Deny access to unprotected persons.



- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Pregnant women or women of child-bearing age should not be exposed to this product. Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Store in accordance with local regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Quartz (SiO ₂) >5µm	14808-60-7	TWA (Respirable particulate matter)	0.025 mg/m ³	ACGIH
		TWA (Respirable dust)	0.05 mg/m ³	OSHA Z-1
		TWA (respirable)	10 mg/m ³ / %SiO ₂ +2	OSHA Z-3
		TWA (respir-	250 mppcf /	OSHA Z-3



		able)	%SiO2+5	
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
		PEL (respirable)	0.05 mg/m3	OSHA CARC
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable particulate matter)	0.025 mg/m3	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the spe-



Hygiene measures : cific work-place.
 : Avoid contact with skin, eyes and clothing.
 Wash hands before breaks and immediately after handling the product.
 Remove contaminated clothing and protective equipment before entering eating areas.
 Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste
 Color : black, white
 Odor : very faint
 Odor Threshold : No data available
 pH : Not applicable
 Melting point/range / Freezing point : No data available
 Boiling point/boiling range : No data available
 Flash point : Not applicable
 Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit / Upper flammability limit : No data available
 Lower explosion limit / Lower flammability limit : No data available
 Vapor pressure : 0.01 hpa
 Relative vapor density : No data available
 Density : 1.52 g/cm3 (68 °F / 20 °C)
 Solubility(ies)
 Water solubility : insoluble
 Solubility in other solvents : No data available
 Partition coefficient: n-octanol/water : No data available
 Autoignition temperature : No data available
 Decomposition temperature : No data available



Viscosity
Viscosity, dynamic : No data available
Viscosity, kinematic : > 20.5 mm²/s (104 °F / 40 °C)
Explosive properties : No data available
Oxidizing properties : No data available
Volatile organic compounds (VOC) content : 5.5 g/l

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : The product is chemically stable.
Possibility of hazardous reactions : Stable under recommended storage conditions.
Conditions to avoid : No data available
Incompatible materials : No data available
Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

1,2,3,4-Butanetetracarboxylic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol and 3-hydroxy-2,2-dimethylpropanal, 1,2,2,6,-

Acute oral toxicity : LD50 Oral (Rat): 1,900 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.



Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

May cause cancer by inhalation.

IARC	Group 1: Carcinogenic to humans Quartz (SiO ₂) (Silica dust, crystalline)	14808-60-7
	Group 2B: Possibly carcinogenic to humans Carbon black	1333-86-4
OSHA	OSHA specifically regulated carcinogen Quartz (SiO ₂) (crystalline silica)	14808-60-7
NTP	Known to be human carcinogen Quartz (SiO ₂) (Silica, Crystalline (Respirable Size))	14808-60-7

Reproductive toxicity

May damage fertility or the unborn child.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks

: Carbon black (1333-86-4)

Animal Toxicity:

Rat, oral, duration 2 year

Effect: no tumors

Mouse, oral, duration 2 years

Effect: no tumors

Mouse, dermal, duration 18 months

Effect: no skin tumors

Rat, inhalation, duration 2 years

Target organ: lungs

Effect: inflammation, fibrosis, tumors

Note: Tumors in the rat lung are considered to be related to the "particle overload phenomenon" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific. Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.



Mortality studies (human data): A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study) found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (DEll, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010). Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington. Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

IARC CANCER CLASSIFICATION: In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans" (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

ICGIH CANCER CLASSIFICATION: Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

ASSESSMENT: Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rats tumors are a



result of a secondary non-genotoxic mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity - Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase the risk to carcinogenicity.

Quartz (14808-60-7): This classification is relevant when exposed to Quartz (silicon dioxide) in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information

: Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging

: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations



IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA list : All chemical substances in this product are either listed as active on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

CERCLA Reportable Quantity
Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
Carcinogenicity
Reproductive toxicity

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65
⚠️ WARNING: This product can expose you to chemicals including Carbon black, amorphous, which is known to the State of California to cause cancer, and 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

OSHA CARC : OSHA Specifically Regulated Chemicals/Carcinogens

OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-



OSHA Z-3

- its for Air Contaminants
- : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
- : 8-hour, time-weighted average
- : Permissible exposure limit (PEL)
- : 8-hour time weighted average
- : 8-hour time weighted average
- : 8-hour time weighted average

ACGIH / TWA
 OSHA CARC / PEL
 OSHA P0 / TWA
 OSHA Z-1 / TWA
 OSHA Z-3 / TWA

Notes to Reader

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Revision Date 01/25/2023

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 US / Z8



SECTION 1. IDENTIFICATION

Product name : Sikaflex®-505 UV

Company name : Sika Corporation
 201 Polito Avenue
 Lyndhurst, NJ 07071
 USA
 www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
 INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements :

Prevention:
 P261 Avoid breathing mist or vapors.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves.

Response:
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362 + P364 Take off contaminated clothing and wash it before



reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
trimethoxyvinylsilane	2768-02-7	Flam. Liq. 3; H226 Skin Sens. 1B; H317	$\geq 1 - < 5$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice

: Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.

If inhaled

: Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact

: Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

In case of eye contact

: Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed

: Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed

: sensitizing effects
Allergic reactions
May cause an allergic skin reaction.

Notes to physician

: Treat symptomatically.



SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Deny access to unprotected persons.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.



SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

: Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection

: Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection

: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures

: Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

: paste

Color

: black, gray, white

Odor

: very faint

Odor Threshold

: No data available

pH

: Not applicable



Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: > 199.9 °F / 93.3 °C (Method: closed cup)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: 0.01 hpa
Relative vapor density	: No data available
Density	: 1.3 - 1.7 g/cm ³ (68 °F / 20 °C)
Solubility(ies)	
Water solubility	: slightly soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s (104 °F / 40 °C)
Explosive properties	: No data available
Oxidizing properties	: No data available
Volatile organic compounds (VOC) content	: 9 g/l

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reac-	: Stable under recommended storage conditions.



tions

Conditions to avoid : No data available

Incompatible materials : No data available

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

trimethoxyvinylsilane:

Acute oral toxicity : LD50 Oral (Rat): ca. 7,120 mg/kg

Acute inhalation toxicity : LC50: ca. 16.8 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50: 3,540 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC Group 2B: Possibly carcinogenic to humans
Titanium dioxide (> 10 µm)

13463-67-7

OSHA Not applicable

NTP Not applicable

Reproductive toxicity

Not classified based on available information.



STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks

: Titanium dioxide (13463-67-7)
In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information

: Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging

: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA list

: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards

: Respiratory or skin sensitization

SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including diisononylphthalate, which is known



to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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Revision Date 10/03/2022

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US / Z8



AP017 SMC (formerly P-17 SMCR) Part A

Revision Date 03/25/2024

Print Date 03/25/2024

SECTION 1. IDENTIFICATION

Product name : AP017 SMC (formerly P-17 SMCR) Part A

Company name : Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.



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No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Talc	14807-96-6		$\geq 30 - < 50$
vinyltoluene	25013-15-4	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2A; H319	$\geq 10 - < 20$



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propylene carbonate	108-32-7	Asp. Tox. 1; H304 Eye Irrit. 2A; H319	>= 1 - < 5
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Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : irritant effects
Excessive lachrymation
Erythema
Dermatitis
Causes skin irritation.
Causes serious eye irritation.
- Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical
- Unsuitable extinguishing media : Water
High volume water jet
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.



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- | | |
|--|---|
| Further information | : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.
Remove all sources of ignition.
Deny access to unprotected persons.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |
| Environmental precautions | : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.
Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). |

SECTION 7. HANDLING AND STORAGE

- | | |
|---|---|
| Advice on protection against fire and explosion | : Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Take precautionary measures against electrostatic discharges. |
| Advice on safe handling | : Do not breathe vapors or spray mist.
Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharge.
Open drum carefully as content may be under pressure.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).
Follow standard hygiene measures when handling chemical products. |
| Conditions for safe storage | : Store in original container.
Keep in a well-ventilated place.
Observe label precautions. |



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Materials to avoid

- Store in accordance with local regulations.
- : Explosives
 - Oxidizing agents
 - Poisonous gases
 - Poisonous liquids

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Talc	14807-96-6	TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (respirable dust fraction)	2 mg/m ³	OSHA P0
		TWA (Respirable particulate matter)	2 mg/m ³	ACGIH
		PEL (respirable)	0.05 mg/m ³	OSHA CARC
vinyltoluene	25013-15-4	TWA	10 ppm	ACGIH
		TWA	100 ppm 480 mg/m ³	OSHA Z-1
		TWA	100 ppm 480 mg/m ³	OSHA P0

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Engineering measures

- : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Personal protective equipment

Respiratory protection

- : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration



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	(gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove respiratory and skin/eye protection only after vapors have been cleared from the area. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: paste
Color	: black, white
Odor	: pungent
Odor Threshold	: No data available
pH	: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: 338 °F / 170 °C
Flash point	: > 131 °F / 55 °C (Method: closed cup)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit / Upper flammability limit	: No data available



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Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	2 hpa
Relative vapor density	:	No data available
Density	:	1.58 g/cm ³ (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm ² /s (104 °F / 40 °C)
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Volatile organic compounds (VOC) content	:	288 g/l Part A + Valspar Cream Hardener BPO Part B Combined.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	No data available
Hazardous decomposition products	:	No decomposition if stored and applied as directed.



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SECTION 11. TOXICOLOGICAL INFORMATION

Not classified based on available information.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC	Group 2B: Possibly carcinogenic to humans Titanium dioxide (> 10 µm)	13463-67-7
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OSHA	OSHA specifically regulated carcinogen Talc (Mg ₃ H ₂ (SiO ₃) ₄) (crystalline silica)	14807-96-6
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NTP	Not applicable
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Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks	: Titanium dioxide (13463-67-7) In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health ef-
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fects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information

: Do not empty into drains; dispose of this material and its container in a safe way.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging

: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations



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IATA-DGR

UN/ID No. : UN 1866
Proper shipping name : Resin solution
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1866
Proper shipping name : RESIN SOLUTION
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

Domestic regulation

49 CFR

UN/ID/NA number : UN 1866
Proper shipping name : Resin solution
Class : 3
Packing group : III
Labels : FLAMMABLE LIQUID
ERG Code : 127
Marine pollutant : no

DOT: As per 49CFR 173.150 (f) Combustible Liquid Exception, Material is Not Regulated.
IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : All chemical substances in this product are either listed as active on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

No substances are subject to a Significant New Use Rule.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:
vinyltoluene 25013-15-4



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CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Talc, which is known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
OSHA CARC : OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA : 8-hour, time-weighted average
OSHA CARC / PEL : Permissible exposure limit (PEL)
OSHA P0 / TWA : 8-hour time weighted average
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

Notes to Reader

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garding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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US / Z8

M A T E R I A L S A F E T Y D A T A S H E E T

EPDM COATING PRIMER

PRODUCT NAME: EPDM COATING PRIMER

PRODUCT CODE: CSI303495

HMIS CODES: H F R I
1 0 0 1

RP-CAP-Q

=====**SECTION 1 - MANUFACTURER IDENTIFICATION**=====

CA ILE SYNTREC INCORPORATED

P.O. BOX 7000

CARLISLE, PA 17013

24 HOUR EMERGENCY PHONE: INITIAL (FIRST CALL) CHEMTREC: 800-424-9300

INFORMATION PHONE: (717)245-7000 FAX: (717) 245-7197

DATE PRINTED : 2/3/2004

DATE REVISED : FEBRUARY 2004

=====**SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION**=====

REPORTABLE COMPONENTS

CAS NUMBER MM HG @ TEMP

WEIGHT PERCENT--

* URETHANE HYBRID POLYMER					
1-NETHYL-2-PYRROLIDINONE, CAS#872-50-4, 6%, NO OEL ESTABLISHED		18.52	210/70F	58	
STYRENE ACRYLIC COPOLYMER		17	210/70F	25	
INDIVIDUAL RESIDUAL MONOMERS <.1%, MIXTURE, NO EXPOSURE LIMITS ESTABLISHED.					
AQUA AMMONIA .1% MAX, CAS#1336-21-5, ACGIH TWA 25PPM, STEL 35 PPM, OSHA TWA NONE, OSHA STEL 35 PPM. STYRENE/ACRYLIC COPOLYMER, MIXTURE, NO EXPOSURE LIMITS ESTABLISHED.					
WATER	7732-18-5	UNK	UNK	8	
NO OEL'S ESTABLISHED.					
* AQUASPERSEIX LAMP BLACK (PIGMENT DISPERSION, AQUEOUS COLORANT) MIXTURE		17	68F/20C	.1	
PROPYLENE GLYCOL, CAS#57-55-6, 5-10% NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED FOR THIS CHEMICAL. CARBON BLACK, CAS# 1333-86-4, 30-60%, OSHA AND ACGIH TLV-3.5MG/M3 TWA. SURFACTANT NJTBR NO. 56705700001-5043P TRADE SECRET 1-5%, NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED FOR THIS CHEMICAL.					

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

THIS MSDS MAY BE USED FOR OTHER COLORS AND CONTAINER SIZES OF THIS PRODUCT.

=====**SECTION 3 HAZARDS IDENTIFICATION**=====

POTENTIAL HEALTH EFFECTS

EYES:

CONTACT MAY RESULT IN SEVERE IRRITATION

SKIN:

SUBSTANCE MAY CAUSE SLIGHT SKIN IRRITATION

INGESTION:

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF LARGE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT.

INHALATION:

PROLONGED EXPOSURE IN POORLY VENTILATED AREAS MAY BE IRRITATING TO EYES, SKIN, MUCOUS MEMBRANES, RESPIRATORY TRACT, AND MAY PRODUCE SYMPTOMS OF HEADACHES DUE TO TRACE AMOUNTS OF RESIDUAL MONOMER VAPORS.

=====**SECTION 4 FIRST AID MEASURES**=====

EYES:

IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS, ITCHING, OR A BURNING SENSATION DEVELOPS SEE A PHYSICIAN.

SKIN:

WASH WITH PLENTY OF SOAP AND WATER.

INGESTION:

CONSULT A PHYSICIAN

INHALATION:

REMOVE FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

P MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CURVED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

=====**SECTION 5 FIRE FIGHTING MEASURES**=====

FLAMMABLE PROPERTIES:

EPDM COATING PRIMER

FLASH POINT: >205F/>96C SETA FLASH CLOSED CUP.

LOWER FLAMMABLE LIMITS: N/A

UPPER FLAMMABLE LIMIT: N/A

AUTO IGNITION TEMPERATURE: NOT AVAILABLE

EXTINGUISHING MEDIA:

CO2, DRY CHEMICAL, WATER SPRAY

SPECIAL FIRE FIGHTING PROCEDURES:

SELF CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRES IN ENCLOSED AREAS. AFTER WATER EVAPORATES, REMAINING MATERIAL WILL BURN. USE ALL PURPOSE FOAM ON FIRES. USE CO2 OR DRY CHEMICAL ON SMALL FIRES.

=====SECTION 6 ACCIDENTAL RELEASE MEASURES=====

SMALL SPILL:

DIKE AND ABSORB WITH INERT MATERIAL SUCH AS SAND AND REMOVE ALL LIQUID WITH THE USE OF A VACUUM SYSTEM. IF UNABLE TO REMOVE AS A LIQUID, THEN BEGIN TO ABSORB WITH SAND, SAW DUST OR COMMERCIAL ABSORBANT, AND SCOOP UP AND PLACE IN CONTAINERS FOR PROPER DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF THE MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DECONTAMINATE ALL CLOTHING AND THE SPILL AREA WITH A DETERGENT AND LARGE AMOUNTS OF WATER.

LARGE SPILL:

USE SAME PROCEDURE AS SMALL SPILL.

=====SECTION 7 HANDLING AND STORAGE=====

HANDLING & STORAGE:

KEEP FROM FREEZING. KEEP CONTAINER COOL AND DRY. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION. KEEP PRODUCT CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. AVOID SUBJECTING THIS PRODUCT TO EXTREME TEMPERATURE VARIATIONS. STORE OUT OF DIRECT SUNLIGHT AT TEMPERATURES BETWEEN 40 - 100F.

OTHER PRECAUTIONS:

CLOSED CONTAINERS MAY EXPLODE DUE TO PRESSURE BUILD-UP IF EXPOSED TO EXTREME HEAT. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR OR SPRAY MIST. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. EMPTY CONTAINERS, ESPECIALLY DRUMS, SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY RETURNED TO A DRUM RECONDITIONER, OR PROPERLY DISPOSED OF. USE ONLY IN A WELL VENTILATED AREA. KEEP OUT OF THE REACH OF CHILDREN.

=====SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION=====

ENGINEERING CONTROLS/PERSONAL PROTECTION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE DURING MIXING AND APPLICATION OPERATIONS TO MINIMIZE EXPOSURE, USE EXPLOSION-PROOF LOCAL EXHAUST VENTILATION CAPABLE OF MAINTAINING EMISSIONS AT THE POINT OF USE BELOW THE PEL OR TLV OR OTHER EXPOSURE GUIDELINES, AS APPROPRIATE. VENTILATION RATES SHOULD BE MATCHED TO CONDITIONS. EXPLOSION-PROOF MECHANICAL EXHAUST VENTILATION, WITH VOLUME AND PATTERN CAPABLE OF MAINTAINING A FRESH AIR SUPPLY, MAY BE NECESSARY IN CONFINED SPACES. REFER TO OSHA STANDARD 29 CFR 1910.94 FOR GUIDELINES. TURN OFF HEATING AND/OR AIR CONDITIONING EQUIPMENT TO PREVENT CONTAMINATING BUILDING.

RESPIRATORY PROTECTION:

WEAR A NIOSH APPROVED RESPIRATOR APPROPRIATE FOR THE VAPOR OR MIST CONCENTRATION AT THE POINT OF USE. APPROPRIATE RESPIRATORS MAY BE A FULL FACEPIECE OR A HALF MASK AIR-PURIFYING CARTRIDGE RESPIRATOR EQUIPPED FOR ORGANIC VAPORS/MISTS, A SELF-CONTAINED BREATHING APPARATUS IN THE PRESSURE DEMAND MODE, OR A SUPPLIED-AIR RESPIRATOR. REFER TO OSHA STANDARD 29 CFR 1910.134 FOR ADDITIONAL INFORMATION.

SKIN PROTECTION:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

CHEMICAL GOGGLES. IF SPLASHING MAY OCCUR OR DURING SPRAY OPERATIONS WEAR A FACE SHIELD, UNLESS A FULL FACE PIECE RESPIRATOR IS USED. DO NOT WEAR CONTACT LENSES AS THEY MAY CONTRIBUTE TO THE SEVERITY OF INJURY TO THE EYE FROM CONTACT WITH LIQUID AND SPRAY MIST.

=====SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES=====

BOILING RANGE: 100C/212F - 212F/100C

SPECIFIC GRAVITY (H2O=1): 1.0586

VAPOR DENSITY: LIGHTER THAN AIR

EVAPORATION RATE: SLOWER THAN ETHER

COATING V.O.C.: 0.84 lb/g1

COATING V.O.C.: 101 g/1

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MATERIAL V.O.C.: 0.37 lb/gl

MATERIAL V.O.C.: 44 g/l

SOLUBILITY IN WATER: SOLUBLE; DILUTABLE APPEARANCE: WHITE OR COLORED AQUE

ODOR: MILD ODOR

SECTION 10 STABILITY & REACTIVITY DATA

STABILITY:

STABLE

CONDITIONS TO AVOID

EXTREMELY HOT OR COLD TEMPERATURES

INCOMPATIBILITY (MATERIALS TO AVOID)

NONE KNOWN.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

WILL NOT OCCUR.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 11 TOXICOLOGICAL INFORMATION

EYE:

INCONSEQUENTIAL IRRITATION

SKIN:

SKIN IRRITATION- RABBIT: PRACTICALLY NON-IRRITATING. DERMAL LD50-RABBIT: >5000 mg/kg.

INGESTION:

ORAL LD50-RAT: >5000 MG/KG.

INHALATION:

NO DATA

SUBCHRONIC:

HEADACHE, NAUSEA, ABDOMINAL PAIN AND IRRITATION OF THE NOSE, THROAT AND LUNGS. SKIN AND EYE IRRITATION.

CHRONIC/CARCINOGENICITY:

NOT ESTABLISHED

TERATOLOGY:

NO DATA

REPRODUCTION:

NO DATA.

MUTAGENICITY:

NO DATA.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

NO DATA/CHEMICAL FATE INFORMATION:

NO DATA.

SECTION 13 DISPOSAL CONSIDERATIONS:

INSTRUCTIONS:

DISPOSE OF UNUSED PRODUCT OR CONTAMINATED PRODUCT AND MATERIALS USED IN CLEANING UP SPILLS OR LEAKS IN A MANNER APPROVED FOR THIS MATERIAL. CONSULT APPROPRIATE FEDERAL, STATE AND LOCAL REGULATORY AGENCIES TO ASCERTAIN PROPER DISPOSAL PROCEDURES. INCINERATION IS ACCEPTABLE AND THE PREFERRED METHOD OF DISPOSAL, HOWEVER; NITROGEN OXIDE EMISSIONS CONTROLS MAY BE REQUIRED TO MEET SPECIFICATIONS. CHEMICAL AND BIOLOGICAL DEGRADATION IS POSSIBLE. EMPTY CONTAINERS WILL RETAIN PRODUCT RESIDUE AND VAPORS AND ARE SUBJECT TO PROPER WASTE DISPOSAL, AS ABOVE.

SECTION 14 TRANSPORT INFORMATION

SHIPPING INFORMATION:

DOT INFORMATION - 49 CFR 172.101

OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (CONTAINS ETHYLENE GLYCOL), 5,

NA

DOT DESCRIPTION:

SECTION 15 REGULATORY INFORMATION

(NOT MEANT TO BE ALL INCLUSIVE-SELECTED REGULATIONS REPRESENTED)

US REGULATIONS:

STATUS OF SUBSTANCES LISTS:

THE CONCENTRATIONS SHOWN IN SECTION II ARE MAXIMUM CEILING LEVELS (WEIGHT %) TO BE USED FOR CALCULATIONS FOR REGULATIONS.

A REPORTABLE QUANTITY IS A QUANTITY OF A HAZARDOUS SUBSTANCE THAT TRIGGERS REPORTING REQUIREMENTS UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA). IF A SPILL OF A SUBSTANCE EXCEEDS IT'S

EPDM COATING PRIMER

APPENDIX D, THE RELEASE MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AT (800) 424-8802, THE STATE EMERGENCY RESPONSE COMMISSION (SERC), AND COMMUNITY EMERGENCY COORDINATORS LIKELY TO BE AFFECTED.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986(SARA) TITLE III REQUIRES EMERGENCY PLANNING BASED ON THE THRESHOLD QUANTITIES (TPQ'S) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 355 APPENDIX A&B EXTREMELY HAZARDOUS SUBSTANCES. THE EMERGENCY PLANNING AND RELEASE REQUIREMENTS OF 40 CFR 355 APPLY TO ANY FACILITY AT WHICH THERE IS PRESENT AN AMOUNT OF ANY EXTREMELY HAZARDOUS SUBSTANCE EQUAL TO OR IN EXCESS OF IT'S THRESHOLD PLANNING QUANTITY.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

EPCRA 40 CFR 372 (SECTION 313 REQUIRES EPA AND THE STATES TO ANNUALLY COLLECT DATA ON RELEASES OF CERTAIN TOXIC MATERIALS FROM INDUSTRIAL FACILITIES, AND MAKE THE DATA AVAILABLE TO THE PUBLIC IN THE TOXICS RELEASE INVENTORY (TRI), THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED OR OR COMPILED FOR THIS MATERIAL.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

SEE SECTION II

THE COMPONENTS OF THIS PRODUCT ARE LISTED OR EXCLUDED FROM LISTING ON THE US TOXIC SUBSTANCE CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY. THIS MIXTURE HAS NOT BEEN TESTED AS A WHOLE TO DETERMINE WHETHER THE MIXTURE IS A HEALTH HAZARD. THE MIXTURE SHALL BE ASSUMED TO PRESENT THE SAME HEALTH HAZARDS AS DO THE COMPONENTS WHICH COMPRISE ONE PERCENT (BY WEIGHT OR VOLUME) OR GREATER OF THE MIXTURE, EXCEPT THAT THE MIXTURE SHALL BE ASSUMED TO PRESENT A CARCINOGENIC HAZARD IF IT HAS A COMPONENT IN CONCENTRATIONS OF 0.1 PERCENT OR GREATER WHICH IS CONSIDERED TO BE A CARCINOGEN. FOR A LIST OF HAZARDOUS INGREDIENTS:

SEE SECTION II

THE REMAINING PERCENTAGE OF UNSPECIFIED INGREDIENTS, IF ANY, ARE NOT CONTAINED IN ABOVE DE MINIMIS CONCENTRATIONS AND/OR ARE BELIEVED TO BE NON-HAZARDOUS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200), AND MAY CONSIST OF PIGMENTS, FILLERS, DEFOAMERS, WETTING AGENTS, RESINS, DRYERS, ANTI-BACTERIAL AGENTS, WATER AND/OR SOLVENTS IN VARYING CONCENTRATIONS.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS:

THIS PRODUCT IS NOT LISTED IN ANY DIVISION, CLASS, OR SUBDIVISION.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

NONE KNOWN

EINECS:

NO INFORMATION.

STATE REGULATIONS:

CALIFORNIA:

CALIFORNIA PROPOSITION 65: THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO THE STATE OF CALIFORNIA

A: CAUSE CANCER:

NONE KNOWN

B: CAUSE REPRODUCTIVE HARM:

NONE KNOWN

FLORIDA:

NONE KNOWN

MICHIGAN:

NONE KNOWN

MINNESOTA:

NONE KNOWN

MASSACHUSETTS

NONE KNOWN

PENNSYLVANIA:

NONE KNOWN

NEW JERSEY:

NONE KNOWN

NEW YORK:

NONE KNOWN

WASHINGTON:

NONE KNOWN

=====**SECTION 16 OTHER INFORMATION**=====

CODES DEFINED:

REPEATED: Note: The PD is in words for chemicals that are OSHA hazardous substances

M A T E R I A L S A F E T Y D A T A S H E E T

EPDM COATING PRIMER

A "##" entry in the RQ column indicates that a statutory one-pound RQ applies, but the Agency may adjust the statutory RQ in a future rulemaking.

A "*" entry in the RQ column no RQ is being assigned to the generic or broad class.

A "##" following the RQ indicates that no release reporting is required if the diameter of the pieces of the solid metal released is 100 micrometers (0.004 inches) or more. If a final RQ has not been assigned under CERCLA to any extremely hazardous chemical listed under Section 301 of SARA Title III, a statutory RQ of one pound applies for Section 304 reporting. This product lists the one-pound statutory RQ for extremely hazardous substances not listed under CERCLA.

A "*" following an entry means the chemical is listed as a hazardous air pollutant under Section 112(b) of the Clean Air Act. A statutory RQ of 1 lb. applies until RQs are adjusted.

STATES:

MA: Codes

- 1 IARC (Int. Agency for Research on Cancer)
- 2 OSHA 29 CFR 1910.1000, sub part Z
- 3 NTP National Toxicology Program
- 4 ACGIH American Conference of Gov. Ind. Hygienists (TLV)
- 5 NFPA49 HAZ CHEM
- 6 NFPA325M FIRE HAZARDS
- 7 CAG Carcinogen Assessment Group
- 8 EPA Environmental Protection Agency pesticides (40 CFR 162.30)
- 9 NCI National Cancer Institutes substances

Hazard Designations

- *C* - Carcinogen Poses a risk of cancer in humans.
- *N* - Neurotoxin Poses a risk of neurotoxic effects in humans.
- *M* - Mutagen Poses a risk of mutagenesis in humans.
- *E* - Extraordinarily Hazardous Substances that have a low lethal dose (LD(50)) or are designated carcinogens.
- *T1* - Teratogen Sufficient evidence of teratogenic risk in humans.
- *T2* - Teratogen Limited evidence of teratogenic risk in humans.

Footnote Designations

- F1 - Elemental Metals and Alloys
- F2 - Asbestos
- F3 - Asphalt
- F4 - Coal Tar Pitch Volatile
- F5 - Dust Producing Materials
- F6 - EPA Extremely Haz. Substances
- F7 - Volatile Organic Substances (VOC's)
- F8 - Cercla Hazardous Substances
- F9 - Toxic Chemical Release Substances

MI: Codes

-- REQUIRES FURTHER REPORTING

MN: Codes

- A American Conference of Governmental Industrial Hygienists (ACGIH)
- I American Industrial Hygiene Association (AIHA)
- N National Institute for Occupational Safety and Health (NIOSH)
- O Occupational Safety and Health Administration (OSHA)
- R International Agency for Research on Cancer (IARC)
- S OSHA proposed standards.
- T National Toxicology Program (NTP)

Hazard Designations

- T: Listed as carcinogen or potential by IARC or NTP
- F: Not listed as carcinogen or potential carcinogen
- asphyxiant: Asphyxiant
- dust: Airborne particulate exposure hazard
- fume: Small solid particles formed by the condensation of vapors of solid materials
- skin: Potential hazard from absorption through skin contact

PA: CODES IDENTIFY CHEMICALS AS:

-- (Basic Hazard)

E (ENVIRONMENTAL HAZARD)

* ANY COMPOUND OF THIS CHEMICAL IS ALSO AN ENVIRONMENTAL HAZARD

S (SPECIAL HAZARD)

THE INFORMATION CONTAINED HEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. USERS SHOULD CONSIDER THESE DATA ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM & DETERMINE THE SUITABILITY & COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROPER USE & DISPOSAL OF THESE MATERIALS & THE SAFETY & HEALTH OF EMPLOYEES & CUSTOMERS

M A T E R I A L S A F E T Y D A T A S H E E T

PRODUCT CODE:CSI303991
 PRODUCT NAME: ACRYLIC COATING WHITE

RP-CRC-1

DATE REVISED : AUGUST 200
 HMIS CODES: H F R P
 2 0 0 I

===== SECTION I - MANUFACTURER IDENTIFICATION =====

IDENTIFICATION
 LE SYNTREC INCORPORATED
 P.O. BOX 7000
 EARLISLE, PA 17013
 24 HOUR EMERGENCY PHONE: INITIAL (FIRST CALL) CHEMTREC: 800-424-9300
 INFORMATION PHONE: (717)245-7000 FAX: (717) 245-7197

----- SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION -----

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE MM HG @ TEMP	WEIGHT PERCENT
ACRYLIC POLYMER	MIXTURE	17 68F/20C	41
AMMONIA, CAS #7664-41-7, < 0.20% MAXIMUM, OSHA STEL-35PPM, ACGIH TWA-25PPM, STEL-35PPM. MANUFACTURER'S SUGGESTED GUIDELINES, TWA-25PPM, STEL-35PPM.			
CALCIUM CARBONATE	471-34-1	N/A N/A	23
OSHA PEL-15MG/M3, TOTAL DUST, 5MG/M3, RESPIRABLE DUST. ACGIH TLV-10 MG/M3, TOTAL DUST CONTAINING NO ASBESTOS AND <1% FREE SILICA. IF SILICA LEVELS ABOVE 1.0% ARE PRESENT, THE TLV VALUE IS 0.1 MG OF RESPIRABLE SILICA PER CU. METER FOR BOTH OSHA PEL AND ACGIH TLV.			
WATER	7732-18-5	NO DATANO DATA	14
NO OEL'S ESTABLISHED.			
ALUMINUM TRIHYDROXIDE	21645-51-2	N/A N/A	12
ALUMINA TRIHYDROXIDE; CAS#1344-28-1 64.5%BY WEIGHT. OSHA/PEL 10PPM, ACGIH /TLV 10PPM.			
TITANIUM DIOXIDE	13463-67-7	N/A N/A	6
TITANIUM DIOXIDE, 86-97%, CAS#13463-67-7, ACGIH TLV-10MG/M3, TOTAL DUST TWA, OSHA PEL-15MG/M3, TOTAL DUST, 8 HR TWA, AEL(ACCEPTABLE EXPOSURE LIMIT) OF 10MG/M3, TOTAL DUST 8 HR TWA, 5MG/M3 RESPIRABLE DUST 8 HR TWA. (AEL IS THE EXPOSURE LIMIT RECOMMENDED BY THE MANUFACTURER OF THIS CHEMICAL).			
ALUMINUM HYDROXIDE, CAS#21645-51-2, 1-5%, NO EXPOSURE LIMITS ESTABLISHED.			
SILICATE MINERALS (SILICATE, MICA)	12001-26-2	N/A N/A	2.5
MICA, CAS#12001-26-2, 95.0-99.0%, ACGIH TLV-20MPPCF TWA, STEL-3MG/M3, RESPIRABLE DUST. QUARTZ, CAS#14808-60-7, 0.1-5.0%, ACGIH TLV-0.1MG/M3 TWA, RESPIRABLE DUST, OSHA PEL-0.1MG/M3, RESPIRABLE DUST, (%SIO2+2) RESPIRABLE QUARTZ-SEE 29CFR-1910.1000 TABLE Z-1-A, AIR CONTAMINANTS, OSHA IDLH, 50 MICRO GRAMS/M3, 10 HOUR TWA, RESPIRABLE FREE SILICA.			

* Indicates toxic chemical(s) subject to the reporting requirements of section 113 of Title III and of 40 CFR 372.
 {Indicates carcinogenic chemical.

THIS MSDS MAY BE USED FOR OTHER COLORS AND CONTAINER SIZES OF THIS PRODUCT.

=====SECTION III HAZARDS IDENTIFICATAION=====

POTENTIAL HEALTH EFFECTS
 EYES:
 CONTACT WITH VAPOR AND/OR SPRAY MIST MAY RESULT IN IRRITATION, CONTACT WITH
 LIQUID MAY RESULT IN SEVERE IRRITATION
 SKIN:
 SUBSTANCE MAY CAUSE SLIGHT SKIN IRRITATION
 INGESTION:
 MAY CAUSE ABDOMINAL PAIN, NAUSEA AND VOMITING.
 INHALATION:
 VAPOR OR SPRAY MIST CAN CAUSE HEADACHE, NAUSEA AND IRRITATION OF THE NOSE,
 THROAT AND LUNGS.

=====SECTION IV FIRST AID MEASURES=====

EYE:
 IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS,
 ITCHING, OR A BURNING SENSATION DEVELOPS SEE A PHYSICIAN.

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PRODUCT CODE:CSI303991

DATE REVISED

: AUGUST 200

SKIN:
IMMEDIATELY WASH SKIN WITH LOTS OF SOAP AND WATER. REMOVE
CONTAMINATED CLOTHING AND SHOES AND WASH BEFORE REUSE. GET MEDICAL ATTENTION IF
IRRITATION PERSISTS.

INGESTION:
INGESTION: DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN
UNCONSCIOUS PERSON. CONSULT A PHYSICIAN IMMEDIATELY

INHALATION:
REMOVE FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF NOT BREATHING, GIVE
ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:
NONE FOR THIS MATERIAL.

-----SECTION V FIRE FIGHTING MEASURES-----

FLAMMABLE PROPERTIES:

FLASH POINT:

>205F/>96C SETA FLASH CLOSED CUP.

LOWER FLAMMABLE LIMITS:

N/A

UPPER FLAMMABLE LIMIT:

N/A

AUTO IGNITION TEMPERATURE:

NOT AVAILABLE

EXTINGUISHING MEDIA:

FOAM, CO2, DRY CHEMICAL, WATER FOG OR SPRAY, AS APPROPRIATE FOR SURROUNDING
FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER ANY ENCLOSED OR CONFINED FIRE SPACE WITHOUT FULL PROTECTIVE
EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS (PRESSURE-DEMAND
MSHA/NIOSH APPROVED OR EQUIVALENT) TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF
COMBUSTION PRODUCTS AND OXYGEN DEFICIENCY.

-----SECTION VI ACCIDENTAL RELEASE MEASURES-----

SMALL SPILL:

DIKE AND ABSORB WITH INERT MATERIAL SUCH AS SAND AND REMOVE ALL LIQUID WITH THE
USE OF A VACUUM SYSTEM. IF UNABLE TO REMOVE AS A LIQUID, THEN BEGIN TO ABSORB
WITH SAND, SAW DUST OR COMMERCIAL ABSORBANT, AND SCOOP UP AND PLACE IN
CONTAINERS FOR PROPER DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF THE
MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DECONTAMINATE ALL CLOTHING AND THE
SPILL AREA WITH A DETERGENT AND LARGE AMOUNTS OF WATER.

LARGE SPILL:

USE SAME PROCEDURE AS SMALL SPILL.

-----SECTION VII HANDLING AND STORAGE-----

HANDLING & STORAGE:

KEEP FROM FREEZING. KEEP CONTAINER COOL AND DRY. USE AND STORE THIS PRODUCT WITH
ADEQUATE VENTILATION. KEEP PRODUCT CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE.
AVOID SUBJECTING THIS PRODUCT TO EXTREME TEMPERATURE VARIATIONS.

OTHER PRECAUTIONS:

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED
CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD
PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

-----SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION-----

ENGINEERING CONTROLS/PERSONAL PROTECTION:

USE LOCAL EXHAUST VENTILATION WITH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN.
(.) AT THE POINT OF VAPOR EVOLUTION. REFER TO THE CURRENT EDITION OF
INSTRUMENTAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICE PUBLISHED BY THE
AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS FOR INFORMATION ON THE
DESIGN, INSTALLATION, USE, AND MAINTENANCE OF EXHAUST SYSTEMS.

M A T E R I A L S A F E T Y D A T A S H E E T

DATE REVISED

AUGUST 200

PRODUCT CODE:CSY303991

RESPIRATORY PROTECTION:

FOLLOW OSHA REGULATION 29 CFR 1910.134 FOR RESPIRATOR USE. WHERE OVERSPRAY IS PRESENT, OR IF CONCENTRATION OF PRODUCT IS NOT KNOWN OR ARE ABOVE THE EXPOSURE GUIDELINES. WHEN COMFORT LEVELS MAY BE EXCEEDED, USE AN APPROVED AIR-PURIFYING RE ATOR EQUIPPED WITH AN AMMONIA/METHYLAMINE CARTRIDGE(S).

SKIN PROTECTION:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

CHEMICAL GOGGLES. IF SPLASHING MAY OCCUR OR DURING SPRAY OPERATIONS WEAR A FACE SHIELD, UNLESS A FULL FACE PIECE RESPIRATOR IS USED. DO NOT WEAR CONTACT LENSES AS THEY MAY CONTRIBUTE TO THE SEVERITY OF INJURY TO THE EYE FROM EXPOSURE TO LIQUID AND/OR VAPORS AND SPRAY MIST.

----- SECTION IX PHYSICAL AND CHEMICAL PROPERTIES-----

BOILING RANGE: 212F/100C - 2980+/-60 C SPECIFIC GRAVITY (H2O=1): 1.4

VAPOR DENSITY: LIGHTER THAN AIR

EVAPORATION RATE:

COATING V.O.C.: .08 lb/gal

COATING V.O.C.: 10 g/l

MATERIAL V.O.C.: .04 lb/gal

MATERIAL V.O.C.: 5 g/l

SOLUBILITY IN WATER: SOLUBLE.

APPEARANCE:

HIGHLY THIXOTROPIC LIQUID.

ODOR:

FAINT AMMONIACAL ODOR.

----- SECTION X STABILITY & REACTIVITY DATA-----

STABILITY:

STABLE

CONDITIONS TO AVOID

INCOMPATIBILITY (MATERIALS TO AVOID)

AV. STRONG OXIDIZING AGENTS SUCH AS LIQUID CHLORINE, CONCENTRATED OXYGEN,
SO HYPOCHLORITE OR CALCIUM HYPOCHLORITE.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

THERMAL DECOMPOSITION MAY YIELD ACRYLIC MONOMER, CARBON MONOXIDE AND CARBON DIOXIDE. UNIDENTIFIED ORGANIC COMPOUNDS IN FUMES AND SMOKE MAY BE FORMED DURING COMBUSTION.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

----- SECTION XI TOXICOLOGICAL INFORMATION-----

EYE:

INCONSEQUENTIAL IRRITATION

SKIN:

SKIN IRRITATION- RABBIT: PRACTICALLY NON-IRRITATING. DERMAL LD50-RABBIT: >5000 ng/kg.

INGESTION:

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR A NUMBER OF ACRYLIC EMULSIONS THAT ARE COMPOSITIONALLY SIMILAR TO THIS PRODUCT

TYPICAL DATA ARE:

PRACTICALLY NON-IRRITATING

INHALATION:

IT IS POSSIBLE TO BREATHE THIS MATERIAL UNDER CERTAIN CONDITIONS OF HANDLING AND USE (FOR EXAMPLE, DURING MIXING). BREATHING SMALL AMOUNTS OF THIS MATERIAL DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. BREATHING LARGE AMOUNTS MAY BE HARMFUL. SYMPTOMS USUALLY OCCUR AT AIR CONCENTRATIONS HIGHER THEN THE RECOMMENDED EXPOSURE LIMITS.

SU' ONIC:

HEADACHE, NAUSEA, ABDOMINAL PAIN AND IRRITATION OF THE NOSE, THROAT AND LUNGS. SKIN AND EYE IRRITATION.

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PRODUCT CODE:CSI303991

CHRONIC/CARCINOGENICITY:

HEADACHE, NAUSEA, VOMITING, ABDOMINAL PAIN & IRRITATION OF THE NOSE, THROAT,
LUNGS, SKIN AND EYES.

TE LOGY:

NO DATA.

REPRODUCTION:

NO DATA.

MUTAGENICITY:

NO DATA.

-----SECTION XII ECOLOGICAL INFORMATION-----

ECOTOXICOLOGICAL INFORMATION:

INHERENT BIODEGRADABILITY (OECD 302 B): THIS TYPE OF PRODUCT IS NOT
BIODEGRADABLE BUT READILY BIOELIMINABLE.

EMULSION POLYMER BIODEGRADATION IS GENERALLY CONSIDERED LIMITED AND DEPENDENT ON
POLYMER SIZE AND ORIGIN OF TREATMENT SLUDGE. HOWEVER, MOST OF THESE POLYMERS
READILY ABSORB ONTO WATER TREATMENT SLUDGE AND THEREFORE WOULD BE BIOELIMINABLE
FROM EFFLUENTS.

ACTIVATED SLUDGE RESPIRATORY INHIBITION (OECD 209): >100MG/L (NON-INHIBITING)

THE INFORMATION SHOWN IS BASED ON PROFILES OF COMPOSITIONALLY SIMILAR MATERIALS.

ALGAE (SELENASTRUM CAPRICORNUTUM), 72 HOUR EC50: >100 PPM (NON-TOXIC) RAINBOW
TROUT (ONCORHYNCHUS MYKISS), 96 HOUR LC50: >100 PPM (NON-TOXIC) DAPHNIA MAGNA,
48 HOUR EC50: >100 PPM (NON-TOXIC) MICROTOX, 15 MINUTE EC50: >300 PPM (NON-
TOXIC).

THE ABOVE DATA ARE FOR A COMPOSITIONALLY SIMILAR MATERIAL.

CHEMICAL FATE INFORMATION:

NO DATA.

SE N XIII DISPOSAL CONSIDERATIONS:-----

INSTRUCTIONS:

COAGULATE THE EMULSION BY THE STEPWISE ADDITION OF FERRIC CHLORIDE AND LIME.
REMOVE THE CLEAR SUPERNATANT AND FLUSH TO A CHEMICAL SEWER. INCINERATE LIQUID
AND CONTAMINATED SOLIDS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL
REGULATIONS.

-----SECTION XIV TRANSPORT INFORMATION-----

SHIPPING INFORMATION:

DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION: NOT REGULATED

-----SECTION XV REGULATORY INFORMATION-----

(NOT MEANT TO BE ALL INCLUSIVE-SELECTED REGULATIONS REPRESENTED)

US REGULATIONS:

STATUS OF SUBSTANCES LISTS:

THE CONCENTRATIONS SHOWN IN SECTION II ARE MAXIMUM CEILING LEVELS (WEIGHT %)
TO BE USED FOR CALCULATIONS FOR REGULATIONS.

FEDERAL EPA: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION & LIABILITY ACT
OF 1980 (CERCLA) REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF
RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN
THE REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 302.4.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986(SARA) TITLE III
REQUIRES EMERGENCY PLANNING BASED ON THE THRESHOLD QUANTITIES (TPQ'S)

AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 355
(1 FOR SARA 302, 304, 311, AND 312)

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

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REQUIRES SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN 40 CFR 372 (FOR SARA 313). THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

COMPONENTS THAT COULD REQUIRE REPORTING UNDER THE STATUTE: SEE SECTION II
THE COMPONENTS OF THIS PRODUCT ARE LISTED OR EXCLUDED FROM LISTING ON THE

US TOXIC SUBSTANCE CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY.
THE REMAINING PERCENTAGE OF UNSPECIFIED INGREDIENTS, IF ANY, ARE NOT CONTAINED IN ABOVE DE MINIMIS CONCENTRATIONS AND/OR ARE BELIEVED TO BE NON-HAZARDOUS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200), AND MAY CONSIST OF PIGMENTS, FILLERS, DEFOAMERS, WETTING AGENTS, RESINS, DRYERS,

ANTI-BACTERIAL AGENTS, WATER AND/OR SOLVENTS IN VARYING CONCENTRATIONS.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS:

DOES NOT CLASSIFY AS HAZARDOUS.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

NONE KNOWN

EINECS:

NO INFORMATION.

STATE REGULATIONS:

CALIFORNIA:

CALIFORNIA PROPOSITION 65: THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO THE STATE OF CALIFORNIA

A: CAUSE CANCER:

CRYSTALLINE SILICA. CAS#14808-60-7 (AIRBORNE PARTICLES OF RESPIRABLE SIZE)

IN ADDITION TO THE ABOVE NAMED CHEMICALS, IF ANY, THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF SOME CHEMICALS CONSIDERED BY THE STATE OF CALIFORNIA TO BE CARCINOGENS OR REPRODUCTIVE TOXICANTS.

B: BE REPRODUCTIVE HARM:

NO KNOWN

PENNSYLVANIA:

NONE KNOWN

NEW JERSEY:

NONE KNOWN

OTHER:

NONE KNOWN

-----SECTION XVI OTHER INFORMATION-----

THE INFORMATION CONTAINED HEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. USERS SHOULD CONSIDER THESE DATA ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM & DETERMINE THE SUITABILITY & COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROPER USE & DISPOSAL OF THESE MATERIALS & THE SAFETY & HEALTH OF EMPLOYEES & CUSTOMERS.

M A T E R I A L S A F E T Y D A T A S H E E T

EPDM COATING PRIMER

RP-CRP-Q

PRODUCT NAME: EPDM COATING PRIMER

HMS CODES: H F R J

PRODUCT CODE: CSI303495

1 0 0 1

=====**SECTION 1 - MANUFACTURER IDENTIFICATION**=====

CA ILE SYNTREC INCORPORATED

P.O. BOX 7000

CARLISLE, PA 17013

24 HOUR EMERGENCY PHONE: INITIAL (FIRST CALL) CHEMTREC: 800-424-9300

INFORMATION PHONE: (717)245-7000 FAX: (717) 245-7197

DATE PRINTED : 2/3/2004

DATE REVISED : FEBRUARY 2004

=====**SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION**=====

REPORTABLE COMPONENTS

CAS NUMBER MM HG @ TEMP

WEIGHT PERCENT--

* URETHANE HYBRID POLYMER	MIXTURE	18.52	21C/70F	58
1-METHYL-2-PYRROLIDINONE, CAS#972-50-4, 5%, NO OEL ESTABLISHED				
STYRENE ACRYLIC COPOLYMER	MIXTURE	17	21C/70F	25
INDIVIDUAL RESIDUAL MONOMERS <.1%, MIXTURE, NO EXPOSURE LIMITS ESTABLISHED.				
AQUA AMMONIA .1% MAX, CAS#1336-21-6, AGCYH TWA 25PPM, STEL 35 PPM, OSHA TWA NONE, OSHA STEL 35 PPM. STYRENE/ACRYLIC COPOLYMER, MIXTURE, NO EXPOSURE LIMITS ESTABLISHED.				
WATER	7732-18-5	UNK	UNK	8
NO OEL'S ESTABLISHED.				
* AQUASPERSEIX LAMP BLACK (PIGMENT DISPERSION, AQUEOUS COLORANT)MIXTURE	17	68F/20C		.1
PROPYLENE GLYCOL, CAS#57-55-6, 5-10% NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED FOR THIS CHEMICAL. CARBON BLACK, CAS# 1333-86-4, 30-50%, OSHA AND AC GTH TLV-3.5MG/M3 TWA. SURFACTANT NUTSR NO. 56705700001-5043P TRADE SECRET 1-5%, NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED FOR THIS CHEMICAL.				

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

THIS MSDS MAY BE USED FOR OTHER COLORS AND CONTAINER SIZES OF THIS PRODUCT.

=====**SECTION 3 HAZARDS IDENTIFICATION**=====

POTENTIAL HEALTH EFFECTS

EYES:

CONTACT MAY RESULT IN SEVERE IRRITATION

SKIN:

SUBSTANCE MAY CAUSE SLIGHT SKIN IRRITATION

INGESTION:

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF LARGE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT.

INHALATION:

PROLONGED EXPOSURE IN POORLY VENTILATED AREAS MAY BE IRRITATING TO EYES, SKIN, MUCOUS MEMBRANES, RESPIRATORY TRACT, AND MAY PRODUCE SYMPTOMS OF HEADACHES DUE TO TRACE AMOUNTS OF RESIDUAL MONOMER VAPORS.

=====**SECTION 4 FIRST AID MEASURES**=====

EYES:

IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS, ITCHING, OR A BURNING SENSATION DEVELOPS SEE A PHYSICIAN.

SKIN:

WASH WITH PLENTY OF SOAP AND WATER.

INGESTION:

CONSULT A PHYSICIAN

INHALATION:

REMOVE FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

P MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CURVED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

=====**SECTION 5 FIRE FIGHTING MEASURES**=====

FLAMMABLE PROPERTIES:

EPDM COATING PRIMER

FLASH POINT: >205F/>96C SETA FLASH CLOSED CUP.

LOWER FLAMMABLE LIMITS: N/A

UPPER FLAMMABLE LIMIT: N/A

AUTO IGNITION TEMPERATURE: NOT AVAILABLE

EXTINGUISHING MEDIA:

CO2, DRY CHEMICAL, WATER SPRAY

SPECIAL FIRE FIGHTING PROCEDURES:

SELF CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRES IN ENCLOSED AREAS. AFTER WATER EVAPORATES, REMAINING MATERIAL WILL BURN. USE ALL PURPOSE FOAM ON FIRES. USE CO2 OR DRY CHEMICAL ON SMALL FIRES.

=====SECTION 6 ACCIDENTAL RELEASE MEASURES=====

SMALL SPILL:

DIKE AND ABSORB WITH INERT MATERIAL SUCH AS SAND AND REMOVE ALL LIQUID WITH THE USE OF A VACUUM SYSTEM. IF UNABLE TO REMOVE AS A LIQUID, THEN BEGIN TO ABSORB WITH SAND, SAW DUST OR COMMERCIAL ABSORBANT, AND SCOOP UP AND PLACE IN CONTAINERS FOR PROPER DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF THE MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DECONTAMINATE ALL CLOTHING AND THE SPILL AREA WITH A DETERGENT AND LARGE AMOUNTS OF WATER.

LARGE SPILL:

USE SAME PROCEDURE AS SMALL SPILL.

=====SECTION 7 HANDLING AND STORAGE=====

HANDLING & STORAGE:

KEEP FROM FREEZING. KEEP CONTAINER COOL AND DRY. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION. KEEP PRODUCT CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. AVOID SUBJECTING THIS PRODUCT TO EXTREME TEMPERATURE VARIATIONS. STORE OUT OF DIRECT SUNLIGHT AT TEMPERATURES BETWEEN 40 - 100F.

OTHER PRECAUTIONS:

CLOSED CONTAINERS MAY EXPLODE DUE TO PRESSURE BUILD-UP IF EXPOSED TO EXTREME HEAT. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR OR SPRAY MIST. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. EMPTY CONTAINERS, ESPECIALLY DRUMS, SHOULD BE COMPLETELY DRAINED, PROPERLY BUNCHED AND PROMPTLY RETURNED TO A DRUM RECONDITIONER, OR PROPERLY DISPOSED OF. USE ONLY IN A WELL VENTILATED AREA. KEEP OUT OF THE REACH OF CHILDREN.

=====SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION=====

ENGINEERING CONTROLS/PERSONAL PROTECTION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE DURING MIXING AND APPLICATION OPERATIONS TO MINIMIZE EXPOSURE, USE EXPLOSION-PROOF LOCAL EXHAUST VENTILATION CAPABLE OF MAINTAINING EMISSIONS AT THE POINT OF USE BELOW THE PEL OR TLV OR OTHER EXPOSURE GUIDELINES, AS APPROPRIATE. VENTILATION RATES SHOULD BE MATCHED TO CONDITIONS. EXPLOSION-PROOF MECHANICAL EXHAUST VENTILATION, WITH VOLUME AND PATTERN CAPABLE OF MAINTAINING A FRESH AIR SUPPLY, MAY BE NECESSARY IN CONFINED SPACES. REFER TO OSHA STANDARD 29 CFR 1910.94 FOR GUIDELINES. TURN OFF HEATING AND/OR AIR CONDITIONING EQUIPMENT TO PREVENT CONTAMINATING BUILDING.

RESPIRATORY PROTECTION:

WEAR A NIOSH APPROVED RESPIRATOR APPROPRIATE FOR THE VAPOR OR MIST CONCENTRATION AT THE POINT OF USE. APPROPRIATE RESPIRATORS MAY BE A FULL FACEPIECE OR A HALF MASK AIR-PURIFYING CARTRIDGE RESPIRATOR EQUIPPED FOR ORGANIC VAPORS/MISTS, A SELF-CONTAINED BREATHING APPARATUS IN THE PRESSURE DEMAND MODE, OR A SUPPLIED-AIR RESPIRATOR. REFER TO OSHA STANDARD 29 CFR 1910.134 FOR ADDITIONAL INFORMATION.

SKIN PROTECTION:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

CHEMICAL GOGGLES. IF SPLASHING MAY OCCUR OR DURING SPRAY OPERATIONS WEAR A FACE SHIELD, UNLESS A FULL FACE PIECE RESPIRATOR IS USED. DO NOT WEAR CONTACT LENSES AS THEY MAY CONTRIBUTE TO THE SEVERITY OF INJURY TO THE EYE FROM CONTACT WITH LIQUID AND SPRAY MIST.

=====SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES=====

BOILING RANGE: 100C/212F - 212F/100C

SPECIFIC GRAVITY (H2O=1): 1.0586

VAPOR DENSITY: LIGHTER THAN AIR

EVAPORATION RATE: SLOWER THAN ETHER

COATING V.O.C.: 0.84 lb/g1

COATING V.O.C.: 101 g/1

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EPDM COATING PRIMER

MATERIAL V.O.C.: 0.37 lb/gal

MATERIAL V.O.C.: 44 g/l

SOLUBILITY IN WATER: SOLUBLE; DILUTABLE APPEARANCE: WHITE OR COLORED AQUE
ODOR: MILD ODOR

SECTION 10 STABILITY & REACTIVITY DATA=====

STABILITY:

STABLE

CONDITIONS TO AVOID

EXTREMELY HOT OR COLD TEMPERATURES

INCOMPATIBILITY (MATERIALS TO AVOID)

NONE KNOWN.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

WILL NOT OCCUR.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 11 TOXICOLOGICAL INFORMATION=====

EYE:

INCONSEQUENTIAL IRRITATION

SKIN:

SKIN IRRITATION- RABBIT: PRACTICALLY NON-IRRITATING. DERMAL LD50-RABBIT: >5000 mg/kg.

INGESTION:

ORAL LD50-RAT: >5000 MG/KG.

INHALATION:

NO DATA

SUBCHRONIC:

HEADACHE, NAUSEA, ABDOMINAL PAIN AND IRRITATION OF THE NOSE, THROAT AND LUNGS. SKIN AND EYE IRRITATION.

CHRONIC/CARCINOGENICITY:

NOT ESTABLISHED

TERATOLOGY:

NO DATA

REPRODUCTION:

NO DATA.

MUTAGENICITY:

NO DATA.

SECTION 12 ECOLOGICAL INFORMATION=====

ECOTOXICOLOGICAL INFORMATION:

NO DATA/CHEMICAL FATE INFORMATION:

NO DATA.

SECTION 13 DISPOSAL CONSIDERATIONS:=====

INSTRUCTIONS:

DISPOSE OF UNUSED PRODUCT OR CONTAMINATED PRODUCT AND MATERIALS USED IN CLEANING UP SPILLS OR LEAKS IN A MANNER APPROVED FOR THIS MATERIAL. CONSULT APPROPRIATE FEDERAL, STATE AND LOCAL REGULATORY AGENCIES TO ASCERTAIN PROPER DISPOSAL PROCEDURES. INCINERATION IS ACCEPTABLE AND THE PREFERRED METHOD OF DISPOSAL, HOWEVER; NITROGEN OXIDE EMISSIONS CONTROLS MAY BE REQUIRED TO MEET SPECIFICATIONS. CHEMICAL AND BIOLOGICAL DEGRADATION IS POSSIBLE. EMPTY CONTAINERS WILL RETAIN PRODUCT RESIDUE AND VAPORS AND ARE SUBJECT TO PROPER WASTE DISPOSAL, AS ABOVE.

SECTION 14 TRANSPORT INFORMATION=====

SHIPPING INFORMATION:

DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION:

OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (CONTAINS ETHYLENE GLYCOL), 9,

NA

SECTION 15 REGULATORY INFORMATION=====

(NOT MEANT TO BE ALL INCLUSIVE-(SELECTED REGULATIONS REPRESENTED)

US REGULATIONS:

STATUS OF SUBSTANCES LISTS:

THE CONCENTRATIONS SHOWN IN SECTION II ARE MAXIMUM CEILING LEVELS (WEIGHT %) TO BE USED FOR CALCULATIONS FOR REGULATIONS.

A REPORTABLE QUANTITY IS A QUANTITY OF A HAZARDOUS SUBSTANCE THAT TRIGGERS REPORTING REQUIREMENTS UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA). IF A SPILL OF A SUBSTANCE EXCEEDS IT'S

EPDM COATING PRIMER

APPENDIX B, THE RELEASE MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AT (800) 424-8802, THE STATE EMERGENCY RESPONSE COMMISSION (SERC), AND COMMUNITY EMERGENCY COORDINATORS LIKELY TO BE AFFECTED.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN
 SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III
 REQUIRES EMERGENCY PLANNING BASED ON THE THRESHOLD QUANTITIES (TQ'S)
 AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 355
 APPENDIX A&B EXTREMELY HAZARDOUS SUBSTANCES. THE EMERGENCY PLANNING AND RELEASE
 REQUIREMENTS OF 40 CFR 355 APPLY TO ANY FACILITY AT WHICH THERE IS PRESENT AN
 AMOUNT OF ANY EXTREMELY HAZARDOUS SUBSTANCE EQUAL TO OR IN EXCESS OF IT'S THRESHOLD PLANNING QUANTITY.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN
 EPCRA 40 CFR 372 (SECTION 313 REQUIRES EPA AND THE STATES TO ANNUALLY COLLECT
 DATA ON RELEASES OF CERTAIN TOXIC MATERIALS FROM INDUSTRIAL FACILITIES, AND MAKE
 THE DATA AVAILABLE TO THE PUBLIC IN THE TOXICS RELEASE INVENTORY (TRI), THIS
 INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED OR
 OR COMPILED FOR THIS MATERIAL.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

SEE SECTION II

THE COMPONENTS OF THIS PRODUCT ARE LISTED OR EXCLUDED FROM LISTING ON THE
 US TOXIC SUBSTANCE CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY. THIS MIXTURE
 HAS NOT BEEN TESTED AS A WHOLE TO DETERMINE WHETHER THE MIXTURE IS A HEALTH
 HAZARD. THE MIXTURE SHALL BE ASSUMED TO PRESENT THE SAME HEALTH HAZARDS AS DO THE
 COMPONENTS WHICH COMPRISE ONE PERCENT (BY WEIGHT OR VOLUME) OR GREATER OF THE
 MIXTURE, EXCEPT THAT THE MIXTURE SHALL BE ASSUMED TO PRESENT A CARCINOGENIC
 HAZARD IF IT HAS A COMPONENT IN CONCENTRATIONS OF 0.1 PERCENT OR GREATER WHICH
 IS CONSIDERED TO BE A CARCINOGEN. FOR A LIST OF HAZARDOUS INGREDIENTS:

SEE SECTION II

THE REMAINING PERCENTAGE OF UNSPECIFIED INGREDIENTS, IF ANY, ARE NOT CONTAINED
 IN ABOVE DE MINIMIS CONCENTRATIONS AND/OR ARE BELIEVED TO BE NON-HAZARDOUS
 UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200), AND MAY
 CONSIST OF PIGMENTS, FILLERS, DEFOAMERS, WETTING AGENTS, RESINS, DRYERS,
 ANTI-BACTERIAL AGENTS, WATER AND/OR SOLVENTS IN VARYING CONCENTRATIONS.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS:

THIS PRODUCT IS NOT LISTED IN ANY DIVISION, CLASS, OR SUBDIVISION.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

NONE KNOWN

EINECS:

NO INFORMATION.

STATE REGULATIONS:

CALIFORNIA:

CALIFORNIA PROPOSITION 65: THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY
 THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. THIS
 PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO THE STATE OF CALIFORNIA

A: CAUSE CANCER:

NONE KNOWN

B: CAUSE REPRODUCTIVE HARM:

NONE KNOWN

FLORIDA:

NONE KNOWN

MICHIGAN:

NONE KNOWN

MINNESOTA:

NONE KNOWN

MASSACHUSETTS

NONE KNOWN

PENNSYLVANIA:

NONE KNOWN

NEW JERSEY:

NONE KNOWN

NEW YORK:

NONE KNOWN

WASHINGTON:

NONE KNOWN

=====**SECTION 16 OTHER INFORMATION**=====

CODES DEFINED:

CPD01A-Note: The BA is in round# for chemicals that are CPD01A hazardous substances

M A T E R I A L S A F E T Y D A T A S H E E T

EPDM COATING PRIMER

A "##" entry in the RQ column indicates that a statutory one-pound RQ applies, but the Agency may adjust the statutory RQ in a future rulemaking.
A "*" entry in the RQ column no RQ is being assigned to the generic or broad class.

A "##" following the RQ indicates that no release reporting is required if the diameter of the pieces of the solid metal released is 100 micrometers (0.004 inches) or more.
If a final RQ has not been assigned under CERCLA to any extremely hazardous chemical listed under Section 301 of SARA Title III, a statutory RQ of one pound applies for Section 304 reporting. This product lists the one-pound statutory RQ for extremely hazardous substances not listed under CERCLA.

A "*" following an entry means the chemical is listed as a hazardous air pollutant under Section 112(b) of the Clean Air Act. A statutory RQ of 1 lb. applies until RQs are adjusted.

STATES:

MA: Codes

- 1 IARC(Int.Agency for Research on Cancer)
- 2 OSHA 29 CFR 1910.1000, sub part Z
- 3 NTP National Toxicology Program
- 4 ACGIH American Conference of Gov.Ind. Hygienists (TLV)
- 5 NFPA49 HAZ CHEM
- 6 NFPA325M FIRE HAZARDS
- 7 CAG Carcinogen Assessment Group
- 8 EPA Environmental Protection Agency pesticides (40 CFR 162.30)
- 9 NCI National Cancer Institutes substances

Hazard Designations

- *C* - Carcinogen Poses a risk of cancer in humans.
- *N* - Neurotoxin Poses a risk of neurotoxic effects in humans.
- *M* - Mutagen Poses a risk of mutagenesis in humans.
- *E* - Extraordinarily Hazardous Substances that have a low lethal dose (LD(50)) or are designated carcinogens.
- *T1* - Teratogen Sufficient evidence of teratogenic risk in humans.
- *T2* - Teratogen Limited evidence of teratogenic risk in humans.

Footnote Designations

- F1 - Elemental Metals and Alloys
- F2 - Asbestos
- F3 - Asphalt
- F4 - Coal Tar Pitch Volatile
- F5 - Dust Producing Materials
- F6 - EPA Extremely HAZ. Substances
- F7 - Volatile Organic Substances (VOC's)
- F8 - Cercla Hazardous Substances
- F9 - Toxic Chemical Release Substances

MI: Codes

-- REQUIRES FURTHER REPORTING

MN: Codes

- A American Conference of Governmental Industrial Hygienists (ACGIH)
- I American Industrial Hygiene Association (AIHA)
- N National Institute for Occupational Safety and Health (NIOSH)
- O Occupational Safety and Health Administration (OSHA)
- R International Agency for Research on Cancer (IARC)
- S OSHA proposed standards.
- T National Toxicology Program (NTP)

Hazard Designations

- T: Listed as carcinogen or potential by IARC or NTP
- F: Not listed as carcinogen or potential carcinogen
- asphyxiant: Asphyxiant
- dust: Airborne particulate exposure hazard
- fume: Small solid particles formed by the condensation of vapors of solid materials
- skin: Potential hazard from absorption through skin contact

PA-CODES IDENTIFY CHEMICALS AS:

- (Basic Hazard)
- E (ENVIRONMENTAL HAZARD)
- * ANY COMPOUND OF THIS CHEMICAL IS ALSO AN ENVIRONMENTAL HAZARD
- S (SPECIAL HAZARD)

THE INFORMATION CONTAINED HEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. USERS SHOULD CONSIDER THESE DATA ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM & DETERMINE THE SUITABILITY & COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROPER USE & DISPOSAL OF THESE MATERIALS & THE SAFETY & HEALTH OF EMPLOYEES & CUSTOMERS

M A T E R I A L S A F E T Y D A T A S H E E T

PRODUCT CODE:CSI303991
 PRODUCT NAME: ACRYLIC COATING WHITE

RP-CRC-1

DATE REVISED : AUGUST 200
 HMIS CODES: H F R P
 2 0 0 I

===== SECTION I - MANUFACTURER IDENTIFICATION =====

COMPANY IDENTIFICATION
 SYNTREC INCORPORATED
 P.O. BOX 7000
 MARLISLE, PA 17013
 24 HOUR EMERGENCY PHONE: INITIAL (FIRST CALL) CHEMTREC: 800-424-9300
 INFORMATION PHONE: (717)245-7000 FAX: (717) 245-7197

----- SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION -----

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE MM HG @ TEMP	WEIGHT PERCENT
ACRYLIC POLYMER	MIXTURE	17 69F/20C	41
AMMONIA, CAS #7664-41-7, < 0.20% MAXIMUM, OSHA STEL-35PPM, ACGIH TWA-25PPM, STEL-35PPM. MANUFACTURER'S SUGGESTED GUIDELINES, TWA-25PPM, STEL-35PPM.			
CALCIUM CARBONATE	471-34-1	N/A N/A	23
OSHA PEL-15MG/M3, TOTAL DUST, 5MG/M3, RESPIRABLE DUST. ACGIH TLV-10 MG/M3, TOTAL DUST CONTAINING NO ASBESTOS AND <1% FREE SILICA. IF SILICA LEVELS ABOVE 1.0% ARE PRESENT, THE TLV VALUE IS 0.1 MG OF RESPIRABLE SILICA PER CU. METER FOR BOTH OSHA PEL AND ACGIH TLV.			
WATER	7732-18-5	NO DATA	14
NO OEL'S ESTABLISHED.			
ALUMINUM TRIHYDROXIDE	21645-51-2	N/A N/A	12
ALUMINA TRIHYDROXIDE; CAS#1344-28-1 64.5%BY WEIGHT. OSHA/PEL 10PPM, ACGIH /TLV 10PPM.			
TITANIUM DIOXIDE	13463-67-7	N/A N/A	6
TITANIUM DIOXIDE, 86-97%, CAS#13463-67-7, ACGIH TLV-10MG/M3, TOTAL DUST TWA, OSHA PEL-15MG/M3, TOTAL DUST, 8 HR TWA, AEL (ACCEPTABLE EXPOSURE LIMIT) OF 10MG/M3, TOTAL DUST 8 HR TWA, 5MG/M3 RESPIRABLE DUST 8 HR TWA. (AEL IS THE EXPOSURE LIMIT RECOMMENDED BY THE MANUFACTURER OF THIS CHEMICAL).			
ALUMINUM HYDROXIDE, CAS#21645-51-2, 1-5%, NO EXPOSURE LIMITS ESTABLISHED.			
SILICATE MINERALS (SILICATE, MICA)	12001-26-2	N/A N/A	2.5
MICA, CAS#12001-26-2, 95.0-99.0%, ACGIH TLV-20MPPCF TWA, STEL-3MG/M3, RESPIRABLE DUST. QUARTZ, CAS#14808-60-7, 0.1-5.0%, ACGIH TLV-0.1MG/M3 TWA, RESPIRABLE DUST, OSHA PEL-0.1MG/M3, RESPIRABLE DUST, (%SiO2+2) RESPIRABLE QUARTZ-SEE 29CFR-1910.1000 TABLE Z-1-A, AIR CONTAMINANTS, OSHA IDLH, 50 MICRO GRAMS/M3, 10 HOUR TWA, RESPIRABLE FREE SILICA.			

* Indicates toxic chemical(s) subject to the reporting requirements of section 113 of Title III and of 40 CFR 372.
 † Indicates carcinogenic chemical.

THIS MSDS MAY BE USED FOR OTHER COLORS AND CONTAINER SIZES OF THIS PRODUCT.

===== SECTION III HAZARDS IDENTIFICATION =====

POTENTIAL HEALTH EFFECTS
 EYES:
 CONTACT WITH VAPOR AND/OR SPRAY MIST MAY RESULT IN IRRITATION, CONTACT WITH LIQUID MAY RESULT IN SEVERE IRRITATION
 SKIN:
 SUBSTANCE MAY CAUSE SLIGHT SKIN IRRITATION
 INGESTION:
 MAY CAUSE ABDOMINAL PAIN, NAUSEA AND VOMITING.
 INHALATION:
 VAPOR OR SPRAY MIST CAN CAUSE HEADACHE, NAUSEA AND IRRITATION OF THE NOSE, THROAT AND LUNGS.

----- SECTION IV FIRST AID MEASURES -----

IF IN CONTACT WITH EYES IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS, ITCHING, OR A BURNING SENSATION DEVELOPS SEE A PHYSICIAN.

PRODUCT CODE:CSI303991

SKIN:

IMMEDIATELY WASH SKIN WITH LOTS OF SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND SHOES AND WASH BEFORE REUSE. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

INGESTION:

DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CONSULT A PHYSICIAN IMMEDIATELY

INHALATION:

REMOVE FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

NONE FOR THIS MATERIAL.

SECTION V FIRE FIGHTING MEASURES-----

FLAMMABLE PROPERTIES:

FLASH POINT:

>205F/>96C SETA FLASH CLOSED CUP.

LOWER FLAMMABLE LIMITS:

N/A

UPPER FLAMMABLE LIMIT:

N/A

AUTO IGNITION TEMPERATURE:

NOT AVAILABLE

EXTINGUISHING MEDIA:

FOAM, CO₂, DRY CHEMICAL, WATER FOG OR SPRAY, AS APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER ANY ENCLOSED OR CONFINED FIRE SPACE WITHOUT FULL PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS (PRESSURE-DEMAND MSHA/NIOSH APPROVED OR EQUIVALENT) TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCY.

SECTION VI ACCIDENTAL RELEASE MEASURES-----

SMALL SPILL:

DIKE AND ABSORB WITH INERT MATERIAL SUCH AS SAND AND REMOVE ALL LIQUID WITH THE USE OF A VACUUM SYSTEM. IF UNABLE TO REMOVE AS A LIQUID, THEN BEGIN TO ABSORB WITH SAND, SAW DUST OR COMMERCIAL ABSORBANT, AND SCOOP UP AND PLACE IN CONTAINERS FOR PROPER DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF THE MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DECONTAMINATE ALL CLOTHING AND THE SPILL AREA WITH A DETERGENT AND LARGE AMOUNTS OF WATER.

LARGE SPILL:

USE SAME PROCEDURE AS SMALL SPILL.

SECTION VII HANDLING AND STORAGE-----

HANDLING & STORAGE:

KEEP FROM FREEZING. KEEP CONTAINER COOL AND DRY. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION. KEEP PRODUCT CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. AVOID SUBJECTING THIS PRODUCT TO EXTREME TEMPERATURE VARIATIONS.

OTHER PRECAUTIONS:

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION-----

ENGINEERING CONTROLS/PERSONAL PROTECTION:

USE LOCAL EXHAUST VENTILATION WITH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN. (M,SEC.) AT THE POINT OF VAPOR EVOLUTION. REFER TO THE CURRENT EDITION OF INDUSTRIAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICE PUBLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS FOR INFORMATION ON THE DESIGN, INSTALLATION, USE, AND MAINTENANCE OF EXHAUST SYSTEMS.

M A T E R I A L S A F E T Y D A T A S H E E T

DATE REVISED

: AUGUST 200

PRODUCT CODE:CSI303991

RESPIRATORY PROTECTION:

FOLLOW OSHA REGULATION 29 CFR 1910.134 FOR RESPIRATOR USE. WHERE OVERSPRAY IS PRESENT, OR IF CONCENTRATION OF PRODUCT IS NOT KNOWN OR ARE ABOVE THE EXPOSURE GUIDELINES. WHEN COMFORT LEVELS MAY BE EXCEEDED, USE AN APPROVED AIR-PURIFYING RESPIRATOR EQUIPPED WITH AN AMMONIA/METHYLAMINE CARTRIDGE(S).

SKIN PROTECTION:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

CHEMICAL GOGGLES. IF SPLASHING MAY OCCUR OR DURING SPRAY OPERATIONS WEAR A FACE SHIELD, UNLESS A FULL FACE PIECE RESPIRATOR IS USED. DO NOT WEAR CONTACT LENSES AS THEY MAY CONTRIBUTE TO THE SEVERITY OF INJURY TO THE EYE FROM EXPOSURE TO LIQUID AND/OR VAPORS AND SPRAY MIST.

===== SECTION IX PHYSICAL AND CHEMICAL PROPERTIES=====

BOILING RANGE: 212F/100C - 2980+/-60 C SPECIFIC GRAVITY (H2O=1): 1.4

VAPOR DENSITY: LIGHTER THAN AIR EVAPORATION RATE:

COATING V.O.C.: .08 lb/gal COATING V.O.C.: 10 g/l

MATERIAL V.O.C.: .04 lb/gal MATERIAL V.O.C.: 5 g/l

SOLUBILITY IN WATER: SOLUBLE.

APPEARANCE:

HIGHLY THIXOTROPIC LIQUID.

ODOR:

FAINT AMMONIACAL ODOR.

===== SECTION X STABILITY & REACTIVITY DATA=====

STABILITY:

STABLE

CONDITIONS TO AVOID

INCOMPATIBILITY (MATERIALS TO AVOID):

AVOID STRONG OXIDIZING AGENTS SUCH AS LIQUID CHLORINE, CONCENTRATED OXYGEN, SOI HYPOCHLORITE OR CALCIUM HYPOCHLORITE.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

THERMAL DECOMPOSITION MAY YIELD ACRYLIC MONOMER, CARBON MONOXIDE AND CARBON DIOXIDE. UNIDENTIFIED ORGANIC COMPOUNDS IN FUMES AND SMOKE MAY BE FORMED DURING COMBUSTION.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

===== SECTION XI TOXICOLOGICAL INFORMATION=====

EYE:

INCONSEQUENTIAL IRRITATION

SKIN:

SKIN IRRITATION- RABBIT: PRACTICALLY NON-IRRITATING. DERMAL LD50-RABBIT: >5000 mg/kg.

INGESTION:

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR A NUMBER OF ACRYLIC EMULSIONS THAT ARE COMPOSITIONALLY SIMILAR TO THIS PRODUCT

TYPICAL DATA ARE:

PRACTICALLY NON-IRRITATING

INHALATION:

IT IS POSSIBLE TO BREATHE THIS MATERIAL UNDER CERTAIN CONDITIONS OF HANDLING AND USE (FOR EXAMPLE, DURING MIXING). BREATHING SMALL AMOUNTS OF THIS MATERIAL DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. BREATHING LARGE AMOUNTS MAY BE HARMFUL. SYMPTOMS USUALLY OCCUR AT AIR CONCENTRATIONS HIGHER THAN THE RECOMMENDED EXPOSURE LIMITS.

SUBACUTE:

HEADACHE, NAUSEA, ABDOMINAL PAIN AND IRRITATION OF THE NOSE, THROAT AND LUNGS. SKIN AND EYE IRRITATION.

M A T E R I A L S A F E T Y D A T A S H E E T

DATE REVISED

: AUGUST 200

PRODUCT CODE:CSI303991

CHRONIC/CARCINOGENICITY:

HEADACHE, NAUSEA, VOMITING, ABDOMINAL PAIN & IRRITATION OF THE NOSE, THROAT, LUNGS, SKIN AND EYES.

TEI LOGY:

NO DATA

REPRODUCTION:

NO DATA.

MUTAGENICITY:

NO DATA.

-----SECTION XII ECOLOGICAL INFORMATION-----

ECOTOXICOLOGICAL INFORMATION:

INHERENT BIODEGRADABILITY (OECD 302 B): THIS TYPE OF PRODUCT IS NOT BIODEGRADABLE BUT READILY BIOELIMINABLE.

EMULSION POLYMER BIODEGRADATION IS GENERALLY CONSIDERED LIMITED AND DEPENDENT ON POLYMER SIZE AND ORIGIN OF TREATMENT SLUDGE. HOWEVER, MOST OF THESE POLYMERS READILY ABSORB ONTO WATER TREATMENT SLUDGE AND THEREFORE WOULD BE BIOELIMINABLE FROM EFFLUENTS.

ACTIVATED SLUDGE RESPIRATORY INHIBITION (OECD 209): >100MG/L (NON-INHIBITING)

THE INFORMATION SHOWN IS BASED ON PROFILES OF COMPOSITIONALLY SIMILAR MATERIALS.

ALGAE (SELENASTRUM CAPRICORNUTUM), 72 HOUR EC50: >100 PPM (NON-TOXIC) RAINBOW TROUT (ONCORHYNCHUS MYKISS), 96 HOUR LC50: >100 PPM (NON-TOXIC) DAPHNIA MAGNA, 48 HOUR EC50: >100 PPM (NON-TOXIC) MICROTOX, 15 MINUTE EC50: >300 PPM (NON-TOXIC).

THE ABOVE DATA ARE FOR A COMPOSITIONALLY SIMILAR MATERIAL.

CHEMICAL FATE INFORMATION:

NO DATA.

SECTION XIII DISPOSAL CONSIDERATIONS:-----

INSTRUCTIONS:

COAGULATE THE EMULSION BY THE STEPWISE ADDITION OF FERRIC CHLORIDE AND LIME. REMOVE THE CLEAR SUPERNATANT AND FLUSH TO A CHEMICAL SEWER. INCINERATE LIQUID AND CONTAMINATED SOLIDS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

-----SECTION XIV TRANSPORT INFORMATION-----

SHIPPING INFORMATION:

DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION: NOT REGULATED

-----SECTION XV REGULATORY INFORMATION-----

(NOT MEANT TO BE ALL INCLUSIVE-SELECTED REGULATIONS REPRESENTED)

US REGULATIONS:

STATUS OF SUBSTANCES LISTS:

THE CONCENTRATIONS SHOWN IN SECTION II ARE MAXIMUM CEILING LEVELS (WEIGHT %) TO BE USED FOR CALCULATIONS FOR REGULATIONS.

FEDERAL EPA: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION & LIABILITY ACT OF 1980 (CERCLA) REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 302.4.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES EMERGENCY PLANNING BASED ON THE THRESHOLD QUANTITIES (TPQ'S)

AND LEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 355 (U FOR SARA 302, 304, 311, AND 312)

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

NONE KNOWN

M A T E R I A L S A F E T Y D A T A S H E E T

DATE REVISED

: AUGUST 200

PRODUCT CODE:CSI303991

REQUIRES SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN 40 CFR 372 (FOR SARA 313). THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

COMPONENTS THAT COULD REQUIRE REPORTING UNDER THE STATUTE: SEE SECTION II THE COMPONENTS OF THIS PRODUCT ARE LISTED OR EXCLUDED FROM LISTING ON THE

US TOXIC SUBSTANCE CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY. THE REMAINING PERCENTAGE OF UNSPECIFIED INGREDIENTS, IF ANY, ARE NOT CONTAINED IN ABOVE DE MINIMIS CONCENTRATIONS AND/OR ARE BELIEVED TO BE NON-HAZARDOUS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200), AND MAY CONSIST OF PIGMENTS, FILLERS, DEFOAMERS, WETTING AGENTS, RESINS, DRYERS,

ANTI-BACTERIAL AGENTS, WATER AND/OR SOLVENTS IN VARYING CONCENTRATIONS.

INTERNATIONAL REGULATIONS:

CANADIAN WEIHS:

DOES NOT CLASSIFY AS HAZARDOUS.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

NONE KNOWN

EINECS:

NO INFORMATION.

STATE REGULATIONS:

CALIFORNIA:

CALIFORNIA PROPOSITION 65: THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO THE STATE OF CALIFORNIA

A: CAUSE CANCER:

CRYSTALLINE SILICA, CAS#14808-60-7 (AIRBORNE PARTICLES OF RESPIRABLE SIZE)

IN ADDITION TO THE ABOVE NAMED CHEMICALS, IF ANY, THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF SOME CHEMICALS CONSIDERED BY THE STATE OF CALIFORNIA TO BE CARCINOGENS OR REPRODUCTIVE TOXICANTS.

B: BE REPRODUCTIVE HARM:

NO KNOWN

PENNSYLVANIA:

NONE KNOWN

NEW JERSEY:

NONE KNOWN

OTHER:

NONE KNOWN

-----SECTION XVI OTHER INFORMATION-----

THE INFORMATION CONTAINED HEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. USERS SHOULD CONSIDER THESE DATA ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM & DETERMINE THE SUITABILITY & COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROPER USE & DISPOSAL OF THESE MATERIALS & THE SAFETY & HEALTH OF EMPLOYEES & CUSTOMERS.

M A T E R I A L S A F E T Y D A T A S H E E T

RP-FGC-1

FLASHING GRADE COATING

PRODUCT NAME: FLASHING GRADE COATING

HMIS CODES: H F R

PRODUCT CODE: SO 2101

1 0 0

=====**SECTION 1 - MANUFACTURER IDENTIFICATION**=====

CHARLES SYNTEC INCORPORATED
P.O. BOX 7000
CHARLES, PA 17013
24 HOUR EMERGENCY PHONE: INITIAL (FIRST CALL) CHEMTREC: 800-424-9300
INFORMATION PHONE: (717)245-7000 FAX: (717) 245-7197

DATE PRINTED : 1/2/04
DATE REVISED : JANUARY 2004

=====**SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION**=====

REPORTABLE COMPONENTS	CAS NUMBER	MM HG	@ TEMP	WEIGHT PERCENT--
ACRYLIC POLYMER	MIXTURE	17	68F/20C	43
AMMONIA, CAS #7664-41-7, < 0.20% MAXIMUM, OSHA STEL-35PPM, ACGIH TWA-25PPM, STEL-35PPM. MANUFACTURER'S SUGGESTED GUIDELINES, TWA-25PPM, STEL-35PPM.				
CALCIUM CARBONATE	471-34-1	N/A	N/A	18
OSHA PEL-15MG/M3, TOTAL DUST, 5MG/M3, RESPIRABLE DUST. ACGIH TLV-10 MG/M3, TOTAL DUST CONTAINING NO ASBESTOS AND <1% FREE SILICA. IF SILICA LEVELS ABOVE 1.0% ARE PRESENT, THE TLV VALUE IS 0.1 MG OF RESPIRABLE SILICA PER CU. METER FOR BOTH OSHA PEL AND ACGIH TLV.				
WATER	7732-18-5	UNK	UNK	15
NO OEL'S ESTABLISHED.				
ALUMINUM TRIHYDROXIDE	21645-51-2	N/A	N/A	12
ALUMINA TRIHYDROXIDE; CAS#1344-28-1 64.5%BY WEIGHT. OSHA/PEL 10PPM, ACGIH /TLV 10PPM.				
IRON OXIDE	MIXTURE	N/A	N/A	5
SILICON DIOXIDE CAS#7631-86-9; 1% BY WEIGHT. OSHA/TWA 6MG/M3, ACGIH/TWA 10 MG/M3.				
SILICATE MINERALS (SILICATE, MICA)	12001-26-2	N/A	N/A	3
MICA, CAS#12001-26-2, 95.0-99.0%, ACGIH TLV-20MPPCF TWA, STEL-3MG/M3, RESPIRABLE DUST. QUARTZ, CAS#14808-60-7, 0.1-5.0%, ACGIH TLV-0.1MG/M3 TWA, RESPIRABLE DUST, OSHA PEL-0.1MG/M3, RESPIRABLE DUST, (%SiO2+2) RESPIRABLE QUARTZ-SEE 29CFR-1910.1000 TABLE Z-1-A, AIR CONTAMINANTS, OSHA IDLH, 50 MICRO GRAMS/M3, 10 HOUR TWA, RESPIRABLE FREE SILICA.				
ISOBUTANE(ENCAPSULATED IN POLYMER)	75-28-5	N/A	N/A	2
CALCIUM CARBONATE WITH CRYSTALLINE SILICA<0.1% TLV IS 3MG/M3.				

*** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present. ***

THIS MSDS MAY BE USED FOR OTHER COLORS AND CONTAINER SIZES OF THIS PRODUCT.

=====**SECTION 3 HAZARDS IDENTIFICATION**=====

POTENTIAL HEALTH EFFECTS

EYES:

CONTACT WITH VAPOR AND/OR SPRAY MIST MAY RESULT IN IRRITATION, CONTACT WITH LIQUID MAY RESULT IN SEVERE IRRITATION

SKIN:

SUBSTANCE MAY CAUSE SLIGHT SKIN IRRITATION

INGESTION:

MAY CAUSE ABDOMINAL PAIN, NAUSEA AND VOMITING.

INHALATION:

VAPOR OR SPRAY MIST CAN CAUSE HEADACHE, NAUSEA AND IRRITATION OF THE NOSE, THROAT AND LUNGS.

=====**SECTION 4 FIRST AID MEASURES**=====

EYES:

IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. IF REDNESS, ITCHING, OR A BURNING SENSATION DEVELOPS SEE A PHYSICIAN.

SKIN:

IMMEDIATELY WASH SKIN WITH LOTS OF SOAP AND WATER. REMOVE

M A T E R I A L S A F E T Y D A T A S H E E T

FLASHING GRADE COATING

CONTAMINATED CLOTHING AND SHOES AND WASH BEFORE REUSE. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

INGESTION:

DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CONSULT A PHYSICIAN IMMEDIATELY

INHALATION:

REMOVE FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

NONE FOR THIS MATERIAL

=====SECTION 5 FIRE FIGHTING MEASURES=====

FLAMMABLE PROPERTIES:

FLASH POINT: >205F/>96C SETA FLASH CLOSED CUP.

LOWER FLAMMABLE LIMITS: N/A

UPPER FLAMMABLE LIMIT: N/A

AUTO IGNITION TEMPERATURE: NOT AVAILABLE

EXTINGUISHING MEDIA:

FOAM, CO2, DRY CHEMICAL, WATER FOG OR SPRAY, AS APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER ANY ENCLOSED OR CONFINED SPACE WITHOUT FULL PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS (PRESSURE-DEMAND MSHA/NIOSH APPROVED OR EQUIVALENT) TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCY.

=====SECTION 6 ACCIDENTAL RELEASE MEASURES=====

SMALL SPILL:

DIKE AND ABSORB WITH INERT MATERIAL SUCH AS SAND AND REMOVE ALL LIQUID WITH THE USE OF A VACUUM SYSTEM. IF UNABLE TO REMOVE AS A LIQUID, THEN BEGIN TO ABSORB WITH SAND, SAW DUST OR COMMERCIAL ABSORBANT, AND SCOOP UP AND PLACE IN CONTAINERS FOR PROPER DISPOSAL. KEEP SPILLS AND CLEANING RUNOFF OUT OF THE MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DECONTAMINATE ALL CLOTHING AND THE SPILL AREA WITH A DETERGENT AND LARGE AMOUNTS OF WATER.

LARGE SPILL:

USE SAME PROCEDURE AS SMALL SPILL.

=====SECTION 7 HANDLING AND STORAGE=====

HANDLING & STORAGE:

KEEP FROM FREEZING. KEEP CONTAINER COOL AND DRY. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION. KEEP PRODUCT CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. AVOID SUBJECTING THIS PRODUCT TO EXTREME TEMPERATURE VARIATIONS

OTHER PRECAUTIONS:

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

=====SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION=====

ENGINEERING CONTROLS/PERSONAL PROTECTION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE DURING MIXING AND APPLICATION OPERATIONS TO MINIMIZE EXPOSURE, SPRAY OR ROLL WITH WIND OR FAN CARRYING VAPORS AWAY FROM YOU. TURN OFF HEATING AND/OR AIR CONDITIONING EQUIPMENT TO PREVENT CONTAMINATING BUILDING

RESPIRATORY PROTECTION:

FOLLOW OSHA REGULATION 29 CFR 1910.134 FOR RESPIRATOR USE. WHERE OVERSPRAY IS PRESENT, OR IF CONCENTRATION OF PRODUCT IS NOT KNOWN OR ARE ABOVE THE EXPOSURE GUIDELINES, WHEN COMFORT LEVELS MAY BE EXCEEDED, USE AN APPROVED AIR-PURIFYING RESPIRATOR EQUIPPED WITH AN AMMONIA/METHYLAMINE CARTRIDGE(S).

SKIN PROTECTION:

M A T E R I A L S A F E T Y D A T A S H E E T

FLASHING GRADE COATING

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. NOTE THAT PVA DEGRADES IN WATER.

EYE PROTECTION:

CHEMICAL GOGGLES. IF SPLASHING MAY OCCUR OR DURING SPRAY OPERATIONS WEAR A FACE SHIELD, UNLESS A FULL FACE PIECE RESPIRATOR IS USED. DO NOT WEAR CONTACT LENSES AS THEY MAY CONTRIBUTE TO THE SEVERITY OF INJURY TO THE EYE FROM CONTACT WITH LIQUID AND SPRAY MIST.

=====**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**=====

BOILING RANGE: 212F/100C - 2980+/-60 C SPECIFIC GRAVITY (H2O=1): 1.1459
VAPOR DENSITY: LIGHTER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
COATING V.O.C.: 0.06 lb/gal COATING V.O.C.: 7 g/l
MATERIAL V.O.C.: 0.04 lb/gal MATERIAL V.O.C.: 4 g/l
SOLUBILITY IN WATER: SOLUBLE APPEARANCE: HIGHLY THIXOTROPIC LIQUID
ODOR: AMMONIA ODOR

=====**SECTION 10 STABILITY & REACTIVITY DATA**=====

STABILITY:

STABLE

CONDITIONS TO AVOID

EXTREMELY HOT OR COLD TEMPERATURES

INCOMPATIBILITY (MATERIALS TO AVOID)

AVOID STRONG OXIDIZING AGENTS SUCH AS LIQUID CHLORINE, CONCENTRATED OXYGEN, SODIUM HYPOCHLORITE OR CALCIUM HYPOCHLORITE.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

THERMAL DECOMPOSITION MAY YIELD ACRYLIC MONOMER, CARBON MONOXIDE AND CARBON DIOXIDE. UNIDENTIFIED ORGANIC COMPOUNDS IN FUMES AND SMOKE MAY BE FORMED DURING COMBUSTION.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

=====**SECTION 11 TOXICOLOGICAL INFORMATION**=====

EYE:

EYE IRRITATION-RABBIT: MODERATE

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

SKIN:

SKIN IRRITATION-RABBIT: SLIGHT

SKIN IRRITATION-GUINEA PIG: SLIGHT

DERMAL LD-50 (RABBIT): 2764MG/KG

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

INGESTION:

ORAL LD-50 (RAT): 7292 MG/KG.

ORAL LD-50 (MOUSE): 2406 MG/KG.

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

INHALATION:

INHALATION LC-50: NOT AVAILABLE.

INFORMATION IS BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

SUBCHRONIC:

HEADACHE, NAUSEA, ABDOMINAL PAIN AND IRRITATION OF THE NOSE, THROAT AND LUNGS. SKIN AND EYE IRRITATION.

CHRONIC/CARCINOGENICITY:

PRODUCT INGREDIENTS ARE AT OR LESS THAN de minimis LEVELS OR ARE NOT CONSIDERED TO BE CARCINOGENS BY THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), THE NATIONAL TOXICOLOGY PROGRAM (NTP) OR BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

TERATOLOGY:

DERMAL STUDY (RABBIT): NOEL FOR MATERNAL TOXICITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED);

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NOEL FOR DEVELOPMENTAL TOXICITY - 1000 MG/KG/DAY (HIGHEST DOSE TESTED).

ORAL STUDY (RAT): LOEL FOR MATERNAL TOXICITY = 5MS/KG; NOEL FOR MATERNAL TOXICITY = NOT ESTABLISHED; NOEL FOR DEVELOPMENTAL TOXICITY = 633 MG/KG/DAY (HIGHEST DOSE TESTED).
 INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

REPRODUCTION:

DERMAL STUDY (13-WEEK, RAT): NOEL FOR MATERNAL/PATERNAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR MATERNAL/PATERNAL FERTILITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR DEVELOPMENTAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED).
 ORAL STUDY (RAT): NOEL FOR MATERNAL/PATERNAL FERTILITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR EMBRYO/FERTOTOXICITY = 1000 MG/KG/DAY.
 INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.

MUTAGENICITY:

NO ANIMAL DATA AVAILABLE

=====SECTION 12 ECOLOGICAL INFORMATION=====

ECOTOXICOLOGICAL INFORMATION:

INHERENT BIODEGRADABILITY (OECD 302 B): THIS TYPE OF PRODUCT IS NOT BIODEGRADABLE BUT READILY BIODEGRADABLE.
 EMULSION POLYMER BIODEGRADATION IS GENERALLY CONSIDERED LIMITED AND DEPENDENT ON POLYMER SIZE AND ORIGIN OF TREATMENT SLUDGE. HOWEVER, MOST OF THESE POLYMERS READILY ADSORB ONTO WATER TREATMENT SLUDGE AND THEREFORE WOULD BE BIOELIMINABLE FROM EFFLUENTS.

ACTIVATED SLUDGE RESPIRATORY INHIBITION (OECD 209): >100MG/L (NON-INHIBITING)

THE INFORMATION SHOWN IS BASED ON PROFILES OF COMPOSITIONALLY SIMILAR MATERIALS.

ALGAE (SELENASTRUM CAPRICORNUTUM), 72 HOUR EC50: >100 PPM (NON-TOXIC) RAINBOW TROUT (ONCORHYNCHUS MYKISS), 96 HOUR LC50: >100 PPM (NON-TOXIC) DAPHNIA MAGNA, 48 HOUR EC50: >100 PPM (NON-TOXIC) MICROTOX, 15 MINUTE EC50: >300 PPM (NON-TOXIC).

THE ABOVE DATA ARE FOR A COMPOSITIONALLY SIMILAR MATERIAL.

CHEMICAL FATE INFORMATION:

NO DATA.

=====SECTION 13 DISPOSAL CONSIDERATIONS=====

INSTRUCTIONS:

COAGULATE THE EMULSION BY THE STEPWISE ADDITION OF FERRIC CHLORIDE AND LIME. REMOVE THE CLEAR SUPERNATANT AND FLUSH TO A CHEMICAL SEWER. INCINERATE LIQUID AND CONTAMINATED SOLIDS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

=====SECTION 14 TRANSPORT INFORMATION=====

SHIPPING INFORMATION:

DOT INFORMATION - 49 CFR 172.101
 DOT DESCRIPTION: NOT REGULATED.

=====SECTION 15 REGULATORY INFORMATION=====

(NOT MEANT TO BE ALL INCLUSIVE-SELECTED REGULATIONS REPRESENTED)

US REGULATIONS:

STATUS OF SUBSTANCES LISTS:
 THE CONCENTRATIONS SHOWN IN SECTION II ARE MAXIMUM CEILING LEVELS (WEIGHT %) TO BE USED FOR CALCULATIONS FOR REGULATIONS.
 A REPORTABLE QUANTITY IS A QUANTITY OF A HAZARDOUS SUBSTANCE THAT TRIGGERS REPORTING REQUIREMENTS UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA). IF A SPILL OF A SUBSTANCE EXCEEDS IT'S REPORTABLE QUANTITY (RQ) IN CFR 302.3 TABLE 40 302.4 APPENDIX A & 302.4 APPENDIX B, THE RELEASE MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AT (800) 424-8802, THE STATE EMERGENCY RESPONSE COMMISSION (SERC), AND COMMUNITY EMERGENCY COORDINATORS LIKELY TO BE AFFECTED.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

MONIA CAS#7664-11-7 RQ 100 #
 SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES EMERGENCY PLANNING BASED ON THE THRESHOLD QUANTITIES (TPQ'S) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ'S) IN 40 CFR 355 APPENDIX A&B EXTREMELY HAZARDOUS SUBSTANCES. THE EMERGENCY PLANNING AND RELEASE REQUIREMENTS OF 40 CFR 355 APPLY TO ANY FACILITY AT WHICH THERE IS PRESENT AN AMOUNT OF ANY EXTREMELY HAZARDOUS SUBSTANCE EQUAL TO OR IN EXCESS OF IT'S THRESHOLD PLANNING QUANTITY.

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COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

AMMONIA CAS#7664-41-7 RQ: 100# TPQ: 500#
EPCRA 40 CFR 372 (SECTION 313 REQUIRES EPA AND THE STATES TO ANNUALLY COLLECT DATA ON RELEASES OF CERTAIN TOXIC MATERIALS FROM INDUSTRIAL FACILITIES, AND MAKE THE DATA AVAILABLE TO THE PUBLIC IN THE TOXICS RELEASE INVENTORY (TRI). THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED OR OR COMPILED FOR THIS MATERIAL.

COMPONENTS PRESENT THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:

SEE SECTION II

THE COMPONENTS OF THIS PRODUCT ARE LISTED OR EXCLUDED FROM LISTING ON THE US TOXIC SUBSTANCE CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY. THIS MIXTURE HAS NOT BEEN TESTED AS A WHOLE TO DETERMINE WHETHER THE MIXTURE IS A HEALTH HAZARD. THE MIXTURE SHALL BE ASSUMED TO PRESENT THE SAME HEALTH HAZARDS AS DO THE COMPONENTS WHICH COMPRISE ONE PERCENT (BY WEIGHT OR VOLUME) OR GREATER OF THE MIXTURE, EXCEPT THAT THE MIXTURE SHALL BE ASSUMED TO PRESENT A CARCINOGENIC HAZARD IF IT HAS A COMPONENT IN CONCENTRATIONS OF 0.1 PERCENT OR GREATER WHICH IS CONSIDERED TO BE A CARCINOGEN. FOR A LIST OF HAZARDOUS INGREDIENTS:

SEE SECTION II

THE REMAINING PERCENTAGE OF UNSPECIFIED INGREDIENTS, IF ANY, ARE NOT CONTAINED IN ABOVE DE MINIMIS CONCENTRATIONS AND/OR ARE BELIEVED TO BE NON-HAZARDOUS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200), AND MAY CONSIST OF PIGMENTS, FILLERS, DEFOAMERS, WETTING AGENTS, RESINS, DRYERS, ANTI-BACTERIAL AGENTS, WATER AND/OR SOLVENTS IN VARYING CONCENTRATIONS.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS:

DOES NOT CLASSIFY AS HAZARDOUS.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

NONE KNOWN

EINECS:

ALL OF THE COMPONENTS OF THIS PRODUCT ARE LISTED IN THE EINECS INVENTORY OR ARE EXEMPT FROM NOTIFICATION REQUIREMENTS.

AMMONIA	CAS#7664-41-7	EINECS#:231-635-3
CALCIUM CARBONATE	CAS#471-34-1	EINECS#:207-439-9
ISOBUTANE	CAS#75-28-5	EINECS#:200-857-2
MICA	CAS#12001-26-2	EINECS#:310-127-6

STATE REGULATIONS:

CALIFORNIA:

CALIFORNIA PROPOSITION 65: THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986. THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO THE STATE OF CALIFORNIA

A: CAUSE CANCER:

MICA, CAS#12001-26-2 (AIRBORNE PARTICLES OF RESPIRABLE SIZE)

IN ADDITION TO THE ABOVE NAMED CHEMICALS, IF ANY, THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF SOME CHEMICALS CONSIDERED BY THE STATE OF CALIFORNIA TO BE CARCINOGENS OR REPRODUCTIVE TOXICANTS.

B: CAUSE REPRODUCTIVE HARM:

NONE KNOWN

FLORIDA:

LISTED AS TOXIC

AMMONIA CAS# 7664-41-7
MICA CAS# 12001-26-2

MICHIGAN:

NONE KNOWN

MINNESOTA:

AMMONIA CAS#7664-41-7

LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:

CODES: ANOS
HAZARDS: --
CARCINOGEN? NO

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- *C* - Carcinogen Poses a risk of cancer in humans.
- *N* - Neurotoxin Poses a risk of neurotoxic effects in humans.
- *M* - Mutagen Poses a risk of mutagenesis in humans.
- *E* - Extraordinarily Hazardous Substances that have a low lethal dose (LD(50)) or are designated carcinogens.
- *T1* - Teratogen Sufficient evidence of teratogenic risk in humans.
- *T2* - Teratogen Limited evidence of teratogenic risk in humans.

Footnote Designations

- F1 - Elemental Metals and Alloys
- F2 - Asbestos
- F3 - Asphalt
- F4 - Coal Tar Pitch Volatile
- F5 - Dust Producing Materials
- F6 - EPA Extremely Haz. Substances
- F7 - Volatile Organic Substances (VOC's)
- F8 - CERCLA Hazardous Substances
- F9 - Toxic Chemical Release Substances

MF: Codes

-- REQUIRES FURTHER REPORTING

MN: Codes

A American Conference of Governmental Industrial Hygienists (ACGIH)

I American Industrial Hygiene Association (AIHA)

N National Institute for Occupational Safety and Health (NIOSH)

O Occupational Safety and Health Administration (OSHA)

R International Agency for Research on Cancer (IARC)

S OSHA proposed standards.

T National Toxicology Program (NTP)

Hazard Designations

T: Listed as carcinogen or potential by IARC or NTP

P: Not listed as carcinogen or potential carcinogen

Asphyxiant: Asphyxiant

Dust: Airborne particulate exposure hazard

fume: Small solid particles formed by the condensation of vapors of solid materials

skin: Potential hazard from absorption through skin contact

PA: CODES IDENTIFY CHEMICALS AS:

-- (Basic Hazard)

E (ENVIRONMENTAL HAZARD)

* ANY COMPOUND OF THIS CHEMICAL IS ALSO AN ENVIRONMENTAL HAZARD

S (SPECIAL HAZARD)

THE INFORMATION CONTAINED HEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. USERS SHOULD CONSIDER THESE DATA ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM & DETERMINE THE SUITABILITY & COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROPER USE & DISPOSAL OF THESE MATERIALS & THE SAFETY & HEALTH OF EMPLOYEES & CUSTOMERS

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CALCIUM CARBONATE CAS#471-34-1
LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:
CODES: A
HAZARDS: --
CARCINOGEN? NO

MASSACHUSETTS

AMMONIA CAS#7664-41-7 SUBSTANCE CODES 2,4,5,6,*E,F6,F8,F9
ISOBUTANE CAS#75-28-5 SUBSTANCE CODES:6
MICA CAS#12001-26-2 SUBSTANCE CODES:2,4

PENNSYLVANIA:

AMMONIA CAS#7664-41-7 CODE:E
ALUMINUM (ALUMINUM OXIDE) CAS#1344-28-1 CODE:E
TITANIUM DIOXIDE CAS#13463-67-7 CODE:--

NEW JERSEY:

AMMONIA CAS#7664-41-7
NEW JERSEY EXTRAORDINARILY HAZARDOUS SUBSTANCE
EDA THRESHOLD:10,000
NJ THRESHOLD:5200

ISOBUTANE(ENCAPSULATED IN POLYMER) CAS#75-28-5
NEW JERSEY RTK HAZARDOUS SUBSTANCE

NEW YORK:

AMMONIA CAS#7664-41-7 RQ--AIR 100, RQ--LAND 100

WASHINGTON:

AMMONIA CAS#7664-41-7
WASHINGTON AIR CONTAMINANT: ppm mg/Cubic Meter
TWA 25 1.0
STEL 35 27
CEILING UNK UNK
SKIN:UNK
MICA CAS# 12001-26-2
WASHINGTON AIR CONTAMINANT: ppm mg/Cubic Meter
TWA UNK 3
STEL UNK UNK
CEILING UNK UNK
SKIN:UNK

=====SECTION 16 OTHER INFORMATION=====

CODES DEFINED:

CERCLA:Note: The RQ is in pounds for chemicals that are CERCLA hazardous substances.
A "*" entry in the RQ column indicates that a statutory one-pound RQ applies, but the Agency may adjust the statutory RQ in a future rulemaking.
A "***" entry in the RQ column no RQ is being assigned to the generic or broad class.

A "A" following the RQ indicates that no release reporting is required if the diameter of the pieces of the solid metal released is 100 micrometers (0.004 inches) or more.
If a final RQ has not been assigned under CERCLA to any extremely hazardous chemical listed under Section 301 of SARA Title III, a statutory RQ of one pound applies for Section 304 reporting. This product lists the one-pound statutory RQ for extremely hazardous substances not listed under CERCLA.

A "+" following an entry means the chemical is listed as a hazardous air pollutant under Section 112(b) of the Clean Air Act. A statutory RQ of 1 lb. applies until RQs are adjusted.

STATES:

- MA: Codes
1 IARC(Int. Agency for Research on Cancer)
2 OSHA 29 CFR 1910.1000, sub part Z
3 NTP National Toxicology Program
4 ACGIH American Conference of Gov. Ind. Hygienists (TLV)
5 NTPA49 HAZ CHEM
6 NFPA325M FIRE HAZARDS
7 CAS Carcinogen Assessment Group
8 EPA Environmental Protection Agency pesticides (40 CFR 162.30)
9 NCI National Cancer Institutes substances
Hazard Designations.



RV Wash and Wax

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 08/14/2014

Date of issue: 08/14/2014

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: RV Wash and Wax

Product Code: 715XX

Intended Use of the Product

Cleaner

Name, Address, and Telephone of the Responsible Party

Company

Star brite Inc.

4041 SW 47th Avenue

Fort Lauderdale, FL 33314

(954)587-6280

www.starbrite.com

Emergency Telephone Number

Emergency number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2 H315

Eye Dam. 1 H318

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



Signal Word (GHS-US) :

Danger

Hazard Statements (GHS-US) :

H315 - Causes skin irritation

H318 - Causes serious eye damage

Precautionary Statements (GHS-US) :

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P280 - Wear eye protection, protective clothing, protective gloves.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see Section 4).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3 H402

H402 - Harmful to aquatic life

P273 - Avoid release to the environment.

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	(CAS No) 68585-47-7	1-5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt	(CAS No) 9004-82-4	0.5-1.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Ammonium chloride	(CAS No) 12125-02-9	0.5-1.5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts	(CAS No) 61789-40-0	0.5 - 1.5	Aquatic Acute 1, H400 Skin Corr. 1B, H314 Eye Irrit. 2A, H319
Dimethylol-5,5-dimethylhydantoin	(CAS No) 6440-58-0	0.1-1	Acute Tox. 4 (Oral), H302

Contains trace amounts of 1,4-Dioxane (CAS No) 123-91-1

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 30 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Causes skin irritation.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

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Firefighting Instructions: Use water spray or fog for cooling exposed containers. Avoid release to the environment. Do not allow run-off from fire fighting to enter drains or water sources.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Silicon oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill. Dispose in a safe manner in accordance with local/national regulations.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s) Cleaner.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ammonium chloride (12125-02-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	20 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	20 mg/m ³
Alberta	OEL STEL (mg/m ³)	20 mg/m ³
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL STEL (mg/m ³)	20 mg/m ³
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³
Manitoba	OEL STEL (mg/m ³)	20 mg/m ³
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³
New Brunswick	OEL STEL (mg/m ³)	20 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³
Newfoundland & Labrador	OEL STEL (mg/m ³)	20 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³

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Nova Scotia	OEL STEL (mg/m ³)	20 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Ontario	OEL STEL (mg/m ³)	20 mg/m ³
Ontario	OEL TWA (mg/m ³)	10 mg/m ³
Prince Edward Island	OEL STEL (mg/m ³)	20 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³
Québec	VECD (mg/m ³)	20 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	10 mg/m ³

1,4-Dioxane (123-91-1)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	360 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	3.6 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	1 ppm
USA IDLH	US IDLH (ppm)	500 ppm
Alberta	OEL TWA (mg/m ³)	72 mg/m ³
Alberta	OEL TWA (ppm)	20 ppm
British Columbia	OEL TWA (ppm)	20 ppm
Manitoba	OEL TWA (ppm)	20 ppm
New Brunswick	OEL TWA (mg/m ³)	90 mg/m ³
New Brunswick	OEL TWA (ppm)	25 ppm
Newfoundland & Labrador	OEL TWA (ppm)	20 ppm
Nova Scotia	OEL TWA (ppm)	20 ppm
Nunavut	OEL STEL (mg/m ³)	360 mg/m ³ (technical grade)
Nunavut	OEL STEL (ppm)	100 ppm (technical grade)
Nunavut	OEL TWA (mg/m ³)	90 mg/m ³ (technical grade)
Nunavut	OEL TWA (ppm)	25 ppm (technical grade)
Northwest Territories	OEL STEL (mg/m ³)	360 mg/m ³ (technical grade)
Northwest Territories	OEL STEL (ppm)	100 ppm (technical grade)
Northwest Territories	OEL TWA (mg/m ³)	90 mg/m ³ (technical grade)
Northwest Territories	OEL TWA (ppm)	25 ppm (technical grade)
Ontario	OEL TWA (ppm)	20 ppm
Prince Edward Island	OEL TWA (ppm)	20 ppm
Québec	VEMP (mg/m ³)	72 mg/m ³
Québec	VEMP (ppm)	20 ppm
Saskatchewan	OEL STEL (ppm)	30 ppm
Saskatchewan	OEL TWA (ppm)	20 ppm
Yukon	OEL STEL (mg/m ³)	180 mg/m ³ (technical grade)
Yukon	OEL STEL (ppm)	50 ppm (technical grade)
Yukon	OEL TWA (mg/m ³)	180 mg/m ³ (technical grade)
Yukon	OEL TWA (ppm)	50 ppm (technical grade)

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Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Safety glasses. Face shield. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles, safety glasses or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Blue
Odor	: Characteristic
Odor Threshold	: Not available
pH	: 6.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 100 °C (> 212°F)
Flash Point	: > 100 °C (> 212°F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity/Relative Density	: 1.02
Solubility	: Soluble in water
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Silicon oxides. Nitrogen oxides. Ammonia. Sulfur oxides.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes skin irritation.

pH: 6.5

Serious Eye Damage/Irritation: Causes serious eye damage.

pH: 6.5

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Ammonium chloride (12125-02-9)	
LD50 Oral Rat	1410 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
LD50 Oral Rat	1600 mg/kg
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
LD50 Oral Rat	2 - 5 g/kg
ATE US (oral)	2,000.00 mg/kg body weight
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
LD50 Oral Rat	4900 mg/kg
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)	
LD50 Oral Rat	> 2000 mg/kg
ATE US (oral)	500.00 mg/kg body weight
1,4-Dioxane (123-91-1)	
LD50 Dermal Rabbit	7600 µl/kg
LC50 Inhalation Rat	46 g/m ³ (Exposure time: 2 h)
ATE US (dust, mist)	46.00 mg/l/4h
1,4-Dioxane (123-91-1)	
IARC Group	2B
National Toxicity Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicology - General: Harmful to aquatic life.

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Ammonium chloride (12125-02-9)	
LC50 Fish 1	209 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
EC50 Other Aquatic Organisms 1	3.12 mg/l (Species Ceriodaphnia, exposure time: 48 hr)
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
LC50 Fish 1	514 mg/l (Freshwater [96h static] Species: Oncorhynchus mykiss) ¹
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
LC50 Fish 1	1 (1.0 - 10.0) mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
EC50 Daphnia 1	6.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1 (1.0 - 10.0) mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC 50 Fish 2	2 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
1,4-Dioxane (123-91-1)	
LC50 Fish 1	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	163 mg/l (Exposure time: 48 h - Species: water flea [Static])
LC 50 Fish 2	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-static])

Persistence and Degradability

RV Wash and Wax	
Persistence and Degradability	Not established.

Bioaccumulative Potential

RV Wash and Wax	
Bioaccumulative Potential	Not established.

1,4-Dioxane (123-91-1)	
BCF fish 1	0.2 - 0.7
log Pow	-0.42

Volatility in Soil Not available.

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

UN Number Not regulated for transport.

UN Proper Shipping Name Not regulated for transport.

Transport Hazard Class(es)

Additional Information Not available.

Transport by sea Not regulated for transport.

Air transport Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

RV Wash and Wax	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Ammonium chloride (12125-02-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

1,4-Dioxane (123-91-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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Listed on SARA Section 313 (Specific toxic chemical listings)	
RA Section 313 - Emission Reporting	0.1 %

Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

1,4-Dioxane (123-91-1)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Ammonium chloride (12125-02-9)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)	
U.S. - Louisiana - Reportable Quantity List for Pollutants	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2	
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2	
RTK - U.S. - Massachusetts - Right To Know List	
U.S. - Michigan - Occupational Exposure Limits - STELs	
U.S. - Michigan - Occupational Exposure Limits - TWAs	
U.S. - Michigan - Polluting Materials List	
U.S. - Minnesota - Hazardous Substance List	
U.S. - Minnesota - Permissible Exposure Limits - STELs	
U.S. - Minnesota - Permissible Exposure Limits - TWAs	
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour	
U.S. - Oregon - Permissible Exposure Limits - TWAs	
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations	
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories	
U.S. - Tennessee - Occupational Exposure Limits - STELs	
U.S. - Tennessee - Occupational Exposure Limits - TWAs	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
U.S. - Vermont - Permissible Exposure Limits - STELs	
U.S. - Vermont - Permissible Exposure Limits - TWAs	
U.S. - Washington - Permissible Exposure Limits - STELs	
U.S. - Washington - Permissible Exposure Limits - TWAs	

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2,2,4,4-tetrahydroxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

1,4-Dioxane (123-91-1)

U.S. - California - SCAQMD - Toxic Air Contaminants - Carcinogens

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic

U.S. - California - SDAPCD - Toxic Air Contaminants - Carcinogenic Impacts Must Be Calculated

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)

U.S. - Colorado - Groundwater Quality Standards

U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)

U.S. - Idaho - Occupational Exposure Limits - TWAs

U.S. - Illinois - Toxic Air Contaminant Carcinogens

U.S. - Illinois - Toxic Air Contaminants

U.S. - Louisiana - Reportable Quantity List for Pollutants

U.S. - Maine - Air Pollutants - Hazardous Air Pollutants

U.S. - Maine - Chemicals of High Concern

U.S. - Massachusetts - Allowable Ambient Limits (AALs)

U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)

U.S. - Massachusetts - Drinking Water Guidelines

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

RTK - U.S. - Massachusetts - Right To Know List

U.S. - Massachusetts - Threshold Effects Exposure Limits (TELS)

U.S. - Massachusetts - Toxics Use Reduction Act

U.S. - Michigan - Occupational Exposure Limits - Skin Designations

U.S. - Michigan - Occupational Exposure Limits - TWAs

U.S. - Michigan - Polluting Materials List

U.S. - Minnesota - Chemicals of High Concern

U.S. - Minnesota - Groundwater Health Risk Limits

U.S. - Minnesota - Hazardous Substance List

U.S. - Minnesota - Permissible Exposure Limits - Skin Designations

U.S. - Minnesota - Permissible Exposure Limits - TWAs

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual

U.S. - New Jersey - Control and Prohibition of Air Pollution by Toxic Substances

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Environmental Hazardous Substances List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New York - Occupational Exposure Limits - Skin Designations

U.S. - New York - Occupational Exposure Limits - TWAs

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<p>U.S. - New York - Priority Chemical Avoidance List</p> <p>U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances</p> <p>U.S. - North Carolina - Control of Toxic Air Pollutants</p> <p>U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour</p> <p>U.S. - North Dakota - Air Pollutants - Unit Risk Factors</p> <p>U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues</p> <p>U.S. - Oregon - Permissible Exposure Limits - Skin Designations</p> <p>U.S. - Oregon - Permissible Exposure Limits - TWAs</p> <p>U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups</p> <p>RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</p> <p>RTK - U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances</p> <p>RTK - U.S. - Pennsylvania - RTK (Right to Know) List</p> <p>U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour</p> <p>U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual</p> <p>U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations</p> <p>U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories</p> <p>U.S. - Tennessee - Occupational Exposure Limits - Skin Designations</p> <p>U.S. - Tennessee - Occupational Exposure Limits - TWAs</p> <p>U.S. - Texas - Effects Screening Levels - Long Term</p> <p>U.S. - Texas - Effects Screening Levels - Short Term</p> <p>U.S. - Vermont - Hazardous Waste - Hazardous Constituents</p> <p>U.S. - Vermont - Permissible Exposure Limits - Skin Designations</p> <p>U.S. - Vermont - Permissible Exposure Limits - TWAs</p> <p>U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List</p> <p>U.S. - Washington - Dangerous Waste - Discarded Chemical Products List</p> <p>U.S. - Washington - Permissible Exposure Limits - Skin Designations</p> <p>U.S. - Washington - Permissible Exposure Limits - STELs</p> <p>U.S. - Washington - Permissible Exposure Limits - TWAs</p> <p>U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet</p> <p>U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet</p> <p>U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater</p> <p>U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet</p>	
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Canadian Regulations

RV Wash and Wax	
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WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Ammonium chloride (12125-02-9)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

IDL Concentration 1 %

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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1,4-Dioxane (123-91-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

IDL Concentration 0.1 %

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 07/22/2014
 Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA Health Hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA Fire Hazard : 0 - Materials that will not burn.

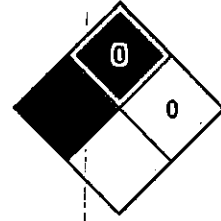
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NFPA Reactivity

: 0 - Normally stable, even under fire exposure conditions,
and are not reactive with water.



Party Responsible for the Preparation of This Document

Star brite Inc.
(954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture
 Product Name: RV Wash and Wax
 Product Code: 715XX

Intended Use of the Product

Cleaner

Name, Address, and Telephone of the Responsible Party

Company

Star brite Inc.
 4041 SW 47th Avenue
 Fort Lauderdale, FL 33314
 (954)587-6280
www.starbrite.com

Emergency Telephone Number

Emergency number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

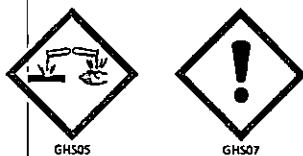
Classification (GHS-US)

Skin Irrit. 2 H315
 Eye Dam. 1 H318

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H315 - Causes skin irritation
 H318 - Causes serious eye damage

Precautionary Statements (GHS-US) : P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
 P280 - Wear eye protection, protective clothing, protective gloves.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a POISON CENTER or doctor/physician.
 P321 - Specific treatment (see Section 4).
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3 H402
 H402 - Harmful to aquatic life
 P273 - Avoid release to the environment.

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Substances</u>			
Name	Product identifier	% (w/w)	Classification (GHS-US)
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	(CAS No) 68585-47-7	1-5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt	(CAS No) 9004-82-4	0.5-1.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Ammonium chloride	(CAS No) 12125-02-9	0.5-1.5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts	(CAS No) 61789-40-0	0.5 - 1.5	Aquatic Acute 1, H400 Skin Corr. 1B, H314 Eye Irrit. 2A, H319
Dimethylol-5,5-dimethylhydantoin	(CAS No) 6440-58-0	0.1-1	Acute Tox. 4 (Oral), H302

Contains trace amounts of 1,4-Dioxane (CAS No) 123-91-1

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary due to varying composition.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 30 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Causes skin irritation.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

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Firefighting Instructions: Use water spray or fog for cooling exposed containers. Avoid release to the environment. Do not allow run-off from fire fighting to enter drains or water sources.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Silicon oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill. Dispose in a safe manner in accordance with local/national regulations.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s) Cleaner.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ammonium chloride (12125-02-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	20 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	20 mg/m ³
Alberta	OEL STEL (mg/m ³)	20 mg/m ³
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL STEL (mg/m ³)	20 mg/m ³
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³
Manitoba	OEL STEL (mg/m ³)	20 mg/m ³
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³
New Brunswick	OEL STEL (mg/m ³)	20 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³
Newfoundland & Labrador	OEL STEL (mg/m ³)	20 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³

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Nova Scotia	OEL STEL (mg/m ³)	20 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Ontario	OEL STEL (mg/m ³)	20 mg/m ³
Ontario	OEL TWA (mg/m ³)	10 mg/m ³
Prince Edward Island	OEL STEL (mg/m ³)	20 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³
Québec	VECD (mg/m ³)	20 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³
Yukon	OEL STEL (mg/m ³)	20 mg/m ³
Yukon	OEL TWA (mg/m ³)	10 mg/m ³

1,4-Dioxane (123-91-1)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	360 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	3.6 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	1 ppm
USA IDLH	US IDLH (ppm)	500 ppm
Alberta	OEL TWA (mg/m ³)	72 mg/m ³
Alberta	OEL TWA (ppm)	20 ppm
British Columbia	OEL TWA (ppm)	20 ppm
Manitoba	OEL TWA (ppm)	20 ppm
New Brunswick	OEL TWA (mg/m ³)	90 mg/m ³
New Brunswick	OEL TWA (ppm)	25 ppm
Newfoundland & Labrador	OEL TWA (ppm)	20 ppm
Nova Scotia	OEL TWA (ppm)	20 ppm
Nunavut	OEL STEL (mg/m ³)	360 mg/m ³ (technical grade)
Nunavut	OEL STEL (ppm)	100 ppm (technical grade)
Nunavut	OEL TWA (mg/m ³)	90 mg/m ³ (technical grade)
Nunavut	OEL TWA (ppm)	25 ppm (technical grade)
Northwest Territories	OEL STEL (mg/m ³)	360 mg/m ³ (technical grade)
Northwest Territories	OEL STEL (ppm)	100 ppm (technical grade)
Northwest Territories	OEL TWA (mg/m ³)	90 mg/m ³ (technical grade)
Northwest Territories	OEL TWA (ppm)	25 ppm (technical grade)
Ontario	OEL TWA (ppm)	20 ppm
Prince Edward Island	OEL TWA (ppm)	20 ppm
Québec	VEMP (mg/m ³)	72 mg/m ³
Québec	VEMP (ppm)	20 ppm
Saskatchewan	OEL STEL (ppm)	30 ppm
Saskatchewan	OEL TWA (ppm)	20 ppm
Yukon	OEL STEL (mg/m ³)	180 mg/m ³ (technical grade)
Yukon	OEL STEL (ppm)	50 ppm (technical grade)
Yukon	OEL TWA (mg/m ³)	180 mg/m ³ (technical grade)
Yukon	OEL TWA (ppm)	50 ppm (technical grade)

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Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Safety glasses. Face shield. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles, safety glasses or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Blue
Odor	: Characteristic
Odor Threshold	: Not available
pH	: 6.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 100 °C (> 212°F)
Flash Point	: > 100 °C (> 212°F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity/Relative Density	: 1.02
Solubility	: Soluble in water
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Silicon oxides. Nitrogen oxides. Ammonia. Sulfur oxides.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes skin irritation.

pH: 6.5

Serious Eye Damage/Irritation: Causes serious eye damage.

pH: 6.5

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Ammonium chloride (12125-02-9)		
LD50 Oral Rat		1410 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)		
LD50 Oral Rat		1600 mg/kg
Dimethylol-5,5-dimethylhydantoin (6440-58-0)		
LD50 Oral Rat		2 - 5 g/kg
ATE US (oral)		2,000.00 mg/kg body weight
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)		
LD50 Oral Rat		4900 mg/kg
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)		
LD50 Oral Rat		> 2000 mg/kg
ATE US (oral)		500.00 mg/kg body weight
1,4-Dioxane (123-91-1)		
LD50 Dermal Rabbit		7600 µl/kg
LC50 Inhalation Rat		46 g/m ³ (Exposure time: 2 h)
ATE US (dust, mist)		46.00 mg/l/4h
1,4-Dioxane (123-91-1)		
IARC Group		2B
National Toxicity Program (NTP) Status		Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicology - General: Harmful to aquatic life.

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Ammonium chloride (12125-02-9)	
LC50 Fish 1	209 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
EC50 Other Aquatic Organisms 1	3.12 mg/l (Species Ceriodaphnia, exposure time: 48 hr)
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
LC50 Fish 1	514 mg/l (Freshwater [96h static] Species: Oncorhynchus mykiss)
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
LC50 Fish 1	1 (1.0 - 10.0) mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
EC50 Daphnia 1	6.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1 (1.0 - 10.0) mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC 50 Fish 2	2 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
1,4-Dioxane (123-91-1)	
LC50 Fish 1	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	163 mg/l (Exposure time: 48 h - Species: water flea [Static])
LC 50 Fish 2	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-static])
Persistence and Degradability	
RV Wash and Wax	
Persistence and Degradability	Not established.
Bioaccumulative Potential	
RV Wash and Wax	
Bioaccumulative Potential	Not established.
1,4-Dioxane (123-91-1)	
BCF fish 1	0.2 - 0.7
log Pow	-0.42
Mobility in Soil Not available.	
Other Adverse Effects	
Other Information: Avoid release to the environment.	
SECTION 13: DISPOSAL CONSIDERATIONS	
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.	
Ecology – Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.	
SECTION 14: TRANSPORT INFORMATION	
In Accordance With ICAO/IATA/DOT/TDG	
UN Number Not regulated for transport.	
UN Proper Shipping Name Not regulated for transport.	
Transport Hazard Class(es)	
Additional Information Not available.	
Transport by sea Not regulated for transport.	
Air transport Not regulated for transport.	
SECTION 15: REGULATORY INFORMATION	
US Federal Regulations	
RV Wash and Wax	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Ammonium chloride (12125-02-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
4-Dioxane (123-91-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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Listed on SARA Section 313 (Specific toxic chemical listings)	
RA Section 313 - Emission Reporting	0.1 %
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
US State Regulations	
1,4-Dioxane (123-91-1)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Ammonium chloride (12125-02-9)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)	
U.S. - Louisiana - Reportable Quantity List for Pollutants	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2	
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1	
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2	
RTK - U.S. - Massachusetts - Right To Know List	
U.S. - Michigan - Occupational Exposure Limits - STELs	
U.S. - Michigan - Occupational Exposure Limits - TWAs	
U.S. - Michigan - Polluting Materials List	
U.S. - Minnesota - Hazardous Substance List	
U.S. - Minnesota - Permissible Exposure Limits - STELs	
U.S. - Minnesota - Permissible Exposure Limits - TWAs	
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour	
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour	
U.S. - Oregon - Permissible Exposure Limits - TWAs	
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations	
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories	
U.S. - Tennessee - Occupational Exposure Limits - STELs	
U.S. - Tennessee - Occupational Exposure Limits - TWAs	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
U.S. - Vermont - Permissible Exposure Limits - STELs	
U.S. - Vermont - Permissible Exposure Limits - TWAs	
U.S. - Washington - Permissible Exposure Limits - STELs	
U.S. - Washington - Permissible Exposure Limits - TWAs	

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Diethyl(oxo-1,2-ethanediyloxy), .alpha.-sulfo-.omega.-(dodecyloxy)-, sodium salt (9004-82-4)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
1,4-Dioxane (123-91-1)
U.S. - California - SCAQMD - Toxic Air Contaminants - Carcinogens
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic
U.S. - California - SDAPCD - Toxic Air Contaminants - Carcinogenic Impacts Must Be Calculated
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Colorado - Groundwater Quality Standards
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Maine - Chemicals of High Concern
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Drinking Water Guidelines
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TEELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - Skin Designations
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Groundwater Health Risk Limits
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - Skin Designations
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Control and Prohibition of Air Pollution by Toxic Substances
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - Skin Designations
U.S. - New York - Occupational Exposure Limits - TWAs


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<p>U.S. - New York - Priority Chemical Avoidance List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - North Carolina - Control of Toxic Air Pollutants U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour U.S. - North Dakota - Air Pollutants - Unit Risk Factors U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues U.S. - Oregon - Permissible Exposure Limits - Skin Designations U.S. - Oregon - Permissible Exposure Limits - TWAs U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List RTK - U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances RTK - U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories U.S. - Tennessee - Occupational Exposure Limits - Skin Designations U.S. - Tennessee - Occupational Exposure Limits - TWAs U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term U.S. - Vermont - Hazardous Waste - Hazardous Constituents U.S. - Vermont - Permissible Exposure Limits - Skin Designations U.S. - Vermont - Permissible Exposure Limits - TWAs U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List U.S. - Washington - Dangerous Waste - Discarded Chemical Products List U.S. - Washington - Permissible Exposure Limits - Skin Designations U.S. - Washington - Permissible Exposure Limits - STELs U.S. - Washington - Permissible Exposure Limits - TWAs U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet</p>	
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Canadian Regulations

RV Wash and Wax	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	
Ammonium chloride (12125-02-9)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
1,4-Dioxane (123-91-1)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
IDL Concentration 0.1 %	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material

Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material

Sulfuric acid, mono-C10-16-alkyl esters, sodium salts (68585-47-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 07/22/2014
 Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA Health Hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

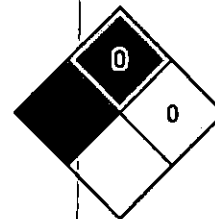
NFPA Fire Hazard : 0 - Materials that will not burn.

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HFPA Reactivity : 0 - Normally stable, even under fire exposure conditions,
and are not reactive with water.



Party Responsible for the Preparation of This Document

Star brite Inc.
(954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2



PREMIUM RV GUARD SPEED DETAILER & PROTECTANT

Safety Data Sheet

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Revision Date: 07/01/2015

Date of issue: 07/01/2015

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: PREMIUM RV GUARD SPEED DETAILER & PROTECTANT

Product Code: 710XX

Intended Use of the Product

Protectant

Name, Address, and Telephone of the Responsible Party

Company

Star brite Inc.

4041 SW 47th Avenue

Fort Lauderdale, FL 33314

(954)587-6280

www.starbrite.com

Emergency Telephone Number

Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Not classified

Label Elements

GHS-US Labeling No labeling applicable

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May cause an allergic reaction in sensitive individuals.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Isopropyl alcohol	(CAS No) 67-63-0	2.95	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Dimethylol-5,5-dimethylhydantoin	(CAS No) 6440-58-0	0.4	Acute Tox. 4 (Oral), H302
Polytetrafluoroethylene	(CAS No) 9002-84-0	0.01	Not classified
2-Butoxyethanol	(CAS No) 111-76-2	0.00345 - 0.00405	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

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Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Most Important Symptoms and Effects Both Acute and Delayed

General: None expected under normal conditions of use.

Inhalation: May cause respiratory irritation.

Skin Contact: May cause mild skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Do not allow run-off from firefighting to enter drains or water courses.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂).

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: No special measures required.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

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Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Reducing agents. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates.

Specific End Use(s) Protectant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Isopropyl alcohol (67-63-0)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	400 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
USA NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
Alberta	OEL STEL (mg/m ³)	984 mg/m ³
Alberta	OEL STEL (ppm)	400 ppm
Alberta	OEL TWA (mg/m ³)	492 mg/m ³
Alberta	OEL TWA (ppm)	200 ppm
British Columbia	OEL STEL (ppm)	400 ppm
British Columbia	OEL TWA (ppm)	200 ppm
Manitoba	OEL STEL (ppm)	400 ppm
Manitoba	OEL TWA (ppm)	200 ppm
New Brunswick	OEL STEL (mg/m ³)	1230 mg/m ³
New Brunswick	OEL STEL (ppm)	500 ppm
New Brunswick	OEL TWA (mg/m ³)	983 mg/m ³
New Brunswick	OEL TWA (ppm)	400 ppm
Newfoundland & Labrador	OEL STEL (ppm)	400 ppm
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm
Nova Scotia	OEL STEL (ppm)	400 ppm
Nova Scotia	OEL TWA (ppm)	200 ppm
Nunavut	OEL STEL (mg/m ³)	1228 mg/m ³
Nunavut	OEL STEL (ppm)	500 ppm
Nunavut	OEL TWA (mg/m ³)	983 mg/m ³
Nunavut	OEL TWA (ppm)	400 ppm
Northwest Territories	OEL STEL (mg/m ³)	1228 mg/m ³
Northwest Territories	OEL STEL (ppm)	500 ppm
Northwest Territories	OEL TWA (mg/m ³)	983 mg/m ³
Northwest Territories	OEL TWA (ppm)	400 ppm
Ontario	OEL STEL (ppm)	400 ppm
Ontario	OEL TWA (ppm)	200 ppm
Prince Edward Island	OEL STEL (ppm)	400 ppm
Prince Edward Island	OEL TWA (ppm)	200 ppm
Québec	VECD (mg/m ³)	1230 mg/m ³

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Québec	VECD (ppm)	500 ppm	
Québec	VEMP (mg/m ³)	985 mg/m ³	
Québec	VEMP (ppm)	400 ppm	
Saskatchewan	OEL STEL (ppm)	400 ppm	
Saskatchewan	OEL TWA (ppm)	200 ppm	
Yukon	OEL STEL (mg/m ³)	1225 mg/m ³	
Yukon	OEL STEL (ppm)	500 ppm	
Yukon	OEL TWA (mg/m ³)	980 mg/m ³	
Yukon	OEL TWA (ppm)	400 ppm	
Polytetrafluoroethylene (9002-84-0)			
Québec	VEMP (mg/m ³)	2.5 mg/m ³ (decomposition products; determine quantitatively the decomposition products in the air and express the results as Fluorides)	
2-Butoxyethanol (111-76-2)			
USA ACGIH	ACGIH TWA (ppm)	20 ppm	
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with	Unknown Relevance to Humans
USA OSHA	OSHA PEL (TWA) (mg/m ³)	240 mg/m ³	
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm	
USA OSHA	Limit value category (OSHA)	prevent or reduce skin absorption	
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	24 mg/m ³	
USA NIOSH	NIOSH REL (TWA) (ppm)	5 ppm	
USA IDLH	US IDLH (ppm)	700 ppm	
Alberta	OEL TWA (mg/m ³)	97 mg/m ³	
Alberta	OEL TWA (ppm)	20 ppm	
British Columbia	OEL TWA (ppm)	20 ppm	
Manitoba	OEL TWA (ppm)	20 ppm	
New Brunswick	OEL TWA (mg/m ³)	121 mg/m ³	
New Brunswick	OEL TWA (ppm)	25 ppm	
Newfoundland & Labrador	OEL TWA (ppm)	20 ppm	
Nova Scotia	OEL TWA (ppm)	20 ppm	
Nunavut	OEL STEL (mg/m ³)	360 mg/m ³	
Nunavut	OEL STEL (ppm)	75 ppm	
Nunavut	OEL TWA (mg/m ³)	120 mg/m ³	
Nunavut	OEL TWA (ppm)	25 ppm	
Northwest Territories	OEL STEL (mg/m ³)	360 mg/m ³	
Northwest Territories	OEL STEL (ppm)	75 ppm	
Northwest Territories	OEL TWA (mg/m ³)	120 mg/m ³	
Northwest Territories	OEL TWA (ppm)	25 ppm	
Ontario	OEL TWA (ppm)	20 ppm	
Prince Edward Island	OEL TWA (ppm)	20 ppm	
Québec	VEMP (mg/m ³)	97 mg/m ³	
Québec	VEMP (ppm)	20 ppm	
Saskatchewan	OEL STEL (ppm)	30 ppm	
Saskatchewan	OEL TWA (ppm)	20 ppm	
Yukon	OEL STEL (mg/m ³)	720 mg/m ³	
Yukon	OEL STEL (ppm)	150 ppm	
Yukon	OEL TWA (mg/m ³)	240 mg/m ³	
Yukon	OEL TWA (ppm)	50 ppm	

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Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Not generally required. The use of personal protective equipment may be necessary as conditions warrant.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Light Blue
Odor	: Pleasant
Odor Threshold	: Not available
pH	: 5
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: > 100 °C (212 °F)
Flash Point	: > 100 °C (212 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 0.995 (at 20°C)
Solubility	: Soluble.
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Reducing agents. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

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pH: 5
 Serious Eye Damage/Irritation: Not classified
 pH: 5
 Respiratory or Skin Sensitization: Not classified
 Germ Cell Mutagenicity: Not classified
 Teratogenicity: Not classified
 Carcinogenicity: Not classified
 Specific Target Organ Toxicity (Repeated Exposure): Not classified
 Reproductive Toxicity: Not classified
 Specific Target Organ Toxicity (Single Exposure): Not classified
 Aspiration Hazard: Not classified
 Symptoms/Injuries After Inhalation: May cause respiratory irritation.
 Symptoms/Injuries After Skin Contact: May cause mild skin irritation.
 Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
 Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
 Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Isopropyl alcohol (67-63-0)		
LD50 Oral Rat		4710 mg/kg
LD50 Dermal Rabbit		4059 mg/kg
LC50 Inhalation Rat		72.6 mg/l/4h (Exposure time: 4 h)
Dimethylol-5,5-dimethylhydantoin (6440-58-0)		
LD50 Oral Rat		1572 mg/kg
2-Butoxyethanol (111-76-2)		
LD50 Oral Rat		470 mg/kg
LD50 Dermal Rat		220 mg/kg
LD50 Dermal Rabbit		99 mg/kg
LC50 Inhalation Rat		450 ppm/4h
ATE US (vapors)		3.84 mg/l/4h
Isopropyl alcohol (67-63-0)		
IARC Group		3
Polytetrafluoroethylene (9002-84-0)		
IARC Group		3
2-Butoxyethanol (111-76-2)		
IARC Group		3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available

Isopropyl alcohol (67-63-0)		
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
EC50 Other Aquatic Organisms 1	1000 mg/l (Exposure time: 96 h - Species: Desmodemus subspicatus)	
LC 50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Other Aquatic Organisms 2	1000 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)	
Dimethylol-5,5-dimethylhydantoin (6440-58-0)		
LC50 Fish 1	514 mg/l (Freshwater [96h static] Species: Oncorhynchus mykiss)	
2-Butoxyethanol (111-76-2)		
EC50 Fish 1	1490 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])	
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC 50 Fish 2	2950 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)	

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Persistence and Degradability	
PREMIUM RV GUARD SPEED DETAILER & PROTECTANT	
Persistence and Degradability	Not established.
Bioaccumulative Potential	
PREMIUM RV GUARD SPEED DETAILER & PROTECTANT	
Bioaccumulative Potential	Not established.
Isopropyl alcohol (67-63-0)	
Log Pow	0.05 (at 25 °C)
2-Butoxyethanol (111-76-2)	
Log Pow	0.81 (at 25 °C)
Mobility in Soil Not available	
Other Adverse Effects	
Other Information: Avoid release to the environment.	

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way.
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG/IMDG	
UN Number	Not regulated for transport
UN Proper Shipping Name	Not regulated for transport
Transport Hazard Class(es)	
Additional Information	Not available
Transport by sea	Not regulated for transport
air transport	Not regulated for transport
Marine Pollutant	No

SECTION 15: REGULATORY INFORMATION

US Federal Regulations	
Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 % (only if manufactured by the strong acid process, no supplier notification)
Dimethylol-5,5-dimethylhydantoin (6440-58-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Polytetrafluoroethylene (9002-84-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
2-Butoxyethanol (111-76-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
US State Regulations	
Isopropyl alcohol (67-63-0)	
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute	
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic	
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)	
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)	
U.S. - Connecticut - Volatile Substances	
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations	

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<p>U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs) U.S. - Idaho - Occupational Exposure Limits - TWAs RTK - U.S. - Massachusetts - Right To Know List U.S. - Massachusetts - Toxics Use Reduction Act U.S. - Michigan - Occupational Exposure Limits - STELs U.S. - Michigan - Occupational Exposure Limits - TWAs U.S. - Minnesota - Hazardous Substance List U.S. - Minnesota - Permissible Exposure Limits - STELs U.S. - Minnesota - Permissible Exposure Limits - TWAs U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Environmental Hazardous Substances List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - New York - Occupational Exposure Limits - TWAs U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour U.S. - Oregon - Permissible Exposure Limits - TWAs RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List RTK - U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour U.S. - Tennessee - Occupational Exposure Limits - STELs U.S. - Tennessee - Occupational Exposure Limits - TWAs U.S. - Texas - City of Austin - Aerosol Paint and Glue Restrictions U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term U.S. - Vermont - Permissible Exposure Limits - STELs U.S. - Vermont - Permissible Exposure Limits - TWAs U.S. - Washington - Permissible Exposure Limits - STELs U.S. - Washington - Permissible Exposure Limits - TWAs</p>	
<p>Polytetrafluoroethylene (9002-84-0)</p>	
<p>RTK - U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term</p>	
<p>2-Butoxyethanol (111-76-2)</p>	
<p>U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) U.S. - Colorado - Groundwater Quality Standards U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min) U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr) U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs) U.S. - Idaho - Occupational Exposure Limits - TWAs U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2 RTK - U.S. - Massachusetts - Right To Know List U.S. - Michigan - Occupational Exposure Limits - Skin Designations U.S. - Michigan - Occupational Exposure Limits - TWAs U.S. - Minnesota - Chemicals of High Concern</p>	

PREMIUM RV GUARD SPEED DETAILER & PROTECTANT

Safety Data Sheet

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U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - Skin Designations
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - Skin Designations
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - Skin Designations
U.S. - Oregon - Permissible Exposure Limits - TWAs
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - Tennessee - Occupational Exposure Limits - Skin Designations
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - Skin Designations
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - Skin Designations
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Canadian Regulations

PREMIUM RV GUARD SPEED DETAILER & PROTECTANT

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Isopropyl alcohol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Dimethylol-5,5-dimethylhydantoin (6440-58-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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Polytetrafluoroethylene (9002-84-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
----------------------	---

2-Butoxyethanol (111-76-2)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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PREMIUM RV GUARD SPEED DETAILER & PROTECTANT

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 07/01/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

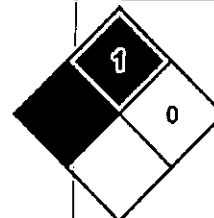
GHS Full Text Phrases:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1B	Skin sensitization Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H310	Fatal in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness

NFPA Health Hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA Fire Hazard : 1 - Must be preheated before ignition can occur.

NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Party Responsible for the Preparation of This Document

Starbrite®

Phone Number: (954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS



RV Awning Cleaner

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 10/15/2014 Date of issue: 10/15/2014

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: RV Awning Cleaner

Product Code: 713XX

Intended Use of the Product

Use of the Substance/Mixture: Cleaner.

Name, Address, and Telephone of the Responsible Party

Company

Star brite Inc.
4041 SW 47th Avenue
Fort Lauderdale, FL 33314
(954)587-6280
www.starbrite.com

Emergency Telephone Number

Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2 H315
Eye Irrit. 2A H319
Skin Sens. 1 H317

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



Signal Word (GHS-US) :

Warning

Hazard Statements (GHS-US) :

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.

Precautionary Statements (GHS-US) :

P261 - Avoid breathing vapors, spray, mist.
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear eye protection, protective gloves, protective clothing.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see Section 4).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3
H402 - Harmful to aquatic life.
P273 - Avoid release to the environment.

Known Acute Toxicity (GHS-US) Not available

RV Awning Cleaner

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>			
Name	Product Identifier	% (w/w)	Classification (GHS-US)
Alcohols, C9-11, ethoxylated	(CAS No) 68439-46-3	1 - 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Tetrasodium EDTA	(CAS No) 64-02-8	0.5 - 1.5	Comb. Dust Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Potassium carbonate	(CAS No) 584-08-7	0.5 - 1.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Sodium xylene sulfonate	(CAS No) 1300-72-7	0.5 - 1.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Citrus, extract	(CAS No) 94266-47-4	0.1 - 0.9	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye irritation. Causes skin irritation.

Inhalation: May cause irritation to the respiratory tract.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting. Exposure may produce an allergic reaction.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

RV Awning Cleaner

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Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water courses. Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen compounds.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Eliminate ignition sources. Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as saw dust or cellulosic material.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Use only non-sparking tools.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store away from oxidizers, combustible materials, and all ignition sources.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Specific End Use(s)

Cleaner.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not applicable

Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Protective clothing. Safety glasses. Gloves. Insufficient ventilation: wear respiratory protection.



Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Body and Body Protection: Wear suitable protective clothing.

Respiratory Protection: A respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2-1992 or MSHA 30 CFR 72.710 (where applicable) requirements must be followed whenever workplace conditions warrant respirator use.

RV Awning Cleaner

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Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Pink
Odor	: Characteristic
Odor Threshold	: Not available
pH	: 12.5 (Alkali reserve = 0.02g NaOH / 100 mL)
Evaporation Rate	: Not available
Melting/Freezing Point	: Not available
Boiling Point	: > 100 °C (212.00 °F)
Flash Point	: > 100 °C (212.00 °F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density/Specific Gravity	: 1.02 (water = 1) at 20 °C (68 °F)
Solubility	: Soluble in water.
Partition Coefficient: N-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Heat, hot surfaces, sparks, open flames, and other ignition sources.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Nitrogen compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation. [pH: 12.5 (Alkali reserve = 0.02g NaOH / 100 mL)]

Serious Eye Damage/Irritation: Causes serious eye irritation. [pH: 12.5 (Alkali reserve = 0.02g NaOH / 100 mL)]

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause irritation to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

RV Awning Cleaner

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Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting. Exposure may produce an allergic action.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Alcohols, C9-11, ethoxylated (68439-46-3)	
LD50 Oral Rat	1400 mg/kg
LD50 Dermal Rat	> 2 g/kg
Tetrasodium EDTA (64-02-8)	
LD50 Oral Rat	1780 mg/kg
ATE US (dust, mist)	1.50 mg/l/4h
Potassium carbonate (584-08-7)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
Sodium xylene sulfonate (1300-72-7)	
LD50 Oral Rat	1000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available

Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC 50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 (algae)	2.77 mg/l (72hr species: Desmodesmus subspicatus)

Persistence and Degradability Not available

bioaccumulative Potential

Tetrasodium EDTA (64-02-8)	
Log Pow	5.01 (calculated)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

- 14.1. **UN Number** Not regulated for transport
- 14.2. **UN Proper Shipping Name** Not regulated for transport
- 14.3. **Additional Information** Not regulated for transport

Transport by Sea Not regulated for transport

Air Transport Not regulated for transport

SECTION 15: REGULATORY INFORMATION


US Federal Regulations

RV Awning Cleaner	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Tetrasodium EDTA (64-02-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

RV Awning Cleaner

Safety Data Sheet

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Potassium carbonate (584-08-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sodium xylene sulfonate (1300-72-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
US State Regulations	
Alcohols, C9-11, ethoxylated (68439-46-3)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Tetrasodium EDTA (64-02-8)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Potassium carbonate (584-08-7)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Citrus, extract (94266-47-4)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Sodium xylene sulfonate (1300-72-7)	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
Canadian Regulations	
RV Awning Cleaner	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	
Alcohols, C9-11, ethoxylated (68439-46-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Tetrasodium EDTA (64-02-8)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
Potassium carbonate (584-08-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
Citrus, extract (94266-47-4)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Sodium xylene sulfonate (1300-72-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 10/15/2014

RV Awning Cleaner

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

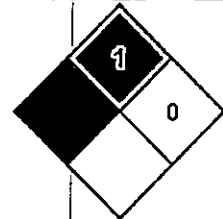
IS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
Comb. Dust	May form combustible dust concentrations in air
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA Health Hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA Fire Hazard : 1 - Must be preheated before ignition can occur.

NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Party Responsible for the Preparation of This Document

Starbrite®

Phone Number: (954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

MATERIAL SAFETY DATA SHEET

Date: April 15, 2013dco

Replaces: March 7, 2010

1. Product and Company Identification

PRODUCT CODE:	75732PW, 75732PC, 75716	Health:	2
PRODUCT NAME:	Star brite Premium RV Polish with PTEF®	Flammability:	2
Chemical Family:	Polish Blend	Instability:	0
AS Number:	Mixture	Special:	

MANUFACTURER NAME AND ADDRESS:	TELEPHONE NUMBERS:
Star brite Distributing, Inc.	Chemtrec: 800-424-9300 or 703-527-3887
4041 S. W. 47 Avenue	Information: 800-327-8583
Ft. Lauderdale, FL 33314	Replaces: July 19, 2006

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS#	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Hydrotreated light distillate (petroleum)	64742-47-8	10.0-15.0%	No data	No data	300 ppm-STEL
2. Kerosene	8008-20-6	15.0-20.0%	No data	No data	300 ppm
3. Kaolin	1332-58-7	1.0-10.0%	10 mg/m3	10 mg/m3	No data
4. Isopropyl alcohol	67-63-0	1.0-5.0%	No data	No data	No data
5. Stoddard solvent	8052-41-3	1.0-5.0%	No data	No data	No data
6. Dimethoxysilyldimethyl- aminoethylaminopropyl silicone	71750-81-7	1.0-5.0%	No data	No data	No data

Hazardous Components (Chemical Name)	RTECS#	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Hydrotreated light distillate (petroleum)	OA5504000	No data	No data	No data	No data
2. Kerosene	OA5500000	No data	No data	No data	No data
3. Kaolin	GF1670500	No data	No data	No data	No data
4. Isopropyl alcohol	NT8050000	No data	No data	No data	No data
5. Stoddard solvent	WJ8925000	No data	No data	No data	No data
6. Dimethoxysilyldimethyl- aminoethylaminopropyl silicone	NA	No data	No data	No data	No data

3. Hazards Identification

Emergency Overview

Danger. Combustible. Contains petroleum distillates. Harmful or fatal if swallowed. Keep away from heat, sparks and open flame. If swallowed, do not induce vomiting, call a physician immediately. Keep out of reach of children.

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Eyes? Yes	Ingestion? Yes
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Potential Health Effects (Acute and Chronic)

ACUTE HEALTH EFFECTS
EYES: Contact will cause eye irritation.
SKIN: Frequent or prolonged contact may irritate and defat the skin.
INHALATION: Inhalation may cause dizziness, headaches and irritate respiratory tract.
INGESTION: This material may be harmful or fatal if swallowed. Irritating to mouth, throat and stomach.
TARGET ORGAN EFFECTS: Central nervous system, possible kidneys (kerosene).

LD 50/LC 50: 5-15 g/kg (kerosene)

Signs and Symptoms of Exposure

EYES: Contact produces burning and redness
SKIN: Prolonged skin contact may result in irritation with redness and severe swelling and blistering.
INGESTION: Irritation of the gastrointestinal tract and possible vomiting and diarrhea.
INHALATION: Vapors or mists, in excess of permissible concentrations, or in unusually high concentrations may cause irritation of the nose, throat, headache, nausea and drowsiness.

Medical Conditions Generally Aggravated by Exposure

No data available.

OSHA Hazard Classes:

HEALTH HAZARDS: Toxic, Irritant
PHYSICAL HAZARDS: Combustible Liquid
TARGET ORGANS & EFFECTS: Kidney, Eyes, Skin, Central Nervous System

PRODUCT CODE: 75732
PRODUCT NAME: Star brite Premium RV Polish with PTEF®

4. First Aid Measures

Emergency and First Aid Procedures

EYES: Check for and remove any contact lenses. Immediately flush eyes with large amounts of water for 15 minutes or until irritation subsides. Get medical attention.
SKIN: Wash exposed area with mild soap and water.
INGESTION: Do not induce vomiting. Get immediate medical attention.
INHALATION: If irritation, headache, nausea or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

5. Fire Fighting Measures

Flash Point 127.00 F (52.8 C) Method: TCC
Explosive Limits: LEL: 0.9 UEL 7.0
Autoignition Point 540.00 F (282.2 C)

Fire Fighting Instructions

A self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

Flammable Properties and Hazards

Combustible Liquid. Material floats on water. Cool fire exposed containers.

Extinguishing Media

Dry Chemicals, CO2 or Alcohol Resistant Foam.

6. Accidental Release Measures

Steps to Be Taken in Case Material is Released or Spilled

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Keep out of sewers and drains. Avoid contact with skin, eyes and clothing.

7. Handling and Storage

Hazard Label Information:

DANGER! Harmful or fatal if swallowed. Combustible. Keep out of reach of children.

Precautions to be Taken in Handling

Combustible. Harmful or fatal if swallowed. Keep away from heat, sparks and open flame. Keep out of reach of children.

Precautions to be Taken in Storing

Store in well ventilated area away from sources of heat, sparks, or open flame.

8. Exposure Controls/Personal Protection

Respiratory Equipment (Specify Type)

Local ventilation needed at times.

Eye Protection

Safety glasses

Protective Gloves

Not required under normal use.

Other Protective Clothing

None should be needed

Engineering Controls (Ventilation etc.)

Adequate or meet occupational exposure limits. See Section II.

Work/Hygienic/Maintenance Practices

Do not smoke while using. Wash hands after use. Use good personal hygiene at all times.

PRODUCT CODE: 75732
PRODUCT NAME: Star brite Premium RV Polish with PTEF®

9. Physical and Chemical Properties

Physical States: [] Gas [X] Liquid [] Solid
Melting Point 32.00 F (0.0 C)
Boiling Point N.A.
Specific Gravity 0.98 - 1.00 at 68.0 F (20.0 C)
Density No data.
Vapor Pressure No data.
Vapor Density No data.
Evaporation Rate No data.
Solubility in Water <0.1% at 68.0 F (20.0 C)
Percent Volatile 79.000 % by weight.
VOC / Volume 29.4400 WT%
HAP / Volume 0.0000
Saturated Vapor Concentration No data.
Viscosity 3500 - 11000 CPS at 68.0 F (20.0 C)
pH 9.8
Appearance and Odor
Thick white liquid with characteristic hydrocarbon odor.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]
Conditions to Avoid – Instability
None known.
Incompatibility – Materials to Avoid
Strong oxidizers.
Hazardous Decomposition or Byproducts
Carbon monoxide, fumes and smoke.
Hazardous Polymerization: Will occur [] Will not occur [X]
Conditions to Avoid – Hazardous Polymerization
Product will not undergo polymerization.

11. Toxicological Information

Toxicological Information
No data available.
Carcinogenicity/Other Information
No data available
Carcinogenicity: NTP? No IARC Monographs? NO OSHA Regulated? No

12. Ecological Information

Ecological Information
No data available.

13. Disposal Considerations

Waste Disposal Method
All notification, clean up and disposal should be carried out in accordance with federal, state and local regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name: Flammable liquids, n.o.s. (Hydrocarbons)
UN Number: 1993
DOT Hazard Class: 3
Packing Group: III
DOT Hazard Label: Limited quantities up to 5 liters. Consumer Commodity ORM-D
Above 5 liters, Flammable Liquid

PRODUCT CODE: 75732
PRODUCT NAME: Star brite Premium RV Polish with PTEF®

14. Transport Information (cont'd)

IATA & IMDG

Proper Shipping Name: Flammable liquids, n.o.s. (Hydrocarbons)
UN Number: 1993
Hazard Class: 3
Packing Group: III
Hazard Labels Required: Limited quantities up to 5 liters.
Above 5 liters, Flammable Liquid

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS#	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Hydrotreated light distillate (petroleum)	64742-47-8	No	No	No	No
2. Kerosine	8008-20-6	No	No	No	No
3. Kaolin	1332-58-7	No	No	No	No
4. Isopropyl alcohol	67-63-0	No	No	Yes	No
5. Stoddard solvent	8052-41-3	No	No	No	No
6. Dimethoxysilyldimethyl- Aminoethylaminopropyl silicone	71750-81-7	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS#	EPS CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Hydrotreated light distillate (petroleum)	64742-47-8	No	No	No	No
2. Kerosine	8008-20-6	No	No	No	No
3. Kaolin	1332-58-7	No	No	No	No
4. Isopropyl alcohol	67-63-0	No	No	No	No
5. Stoddard solvent	8052-41-3	No	No	No	No
6. Dimethoxysilyldimethyl- Aminoethylaminopropyl silicone	71750-81-7	No	No	No	No

EPA (Superfund Amendments and Reauthorization Act of 1986)

Sec.302: EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. *indicates 10000 LB TPQ if not volatile.
Sec.304: EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity** indicates statutory RQ.
Sec.313: EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.
Sec.110: EPA SARA 110 Superfund Site Priority Contaminant List

Other Important Lists:

CWA NPDES: EPA Clean Water Act NPDES Permit Chemical
CAA HAP: EPA Clean Air Act Hazardous Air Pollutant
CAA ODC: EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
CA PROP 65: California Proposition 65

TSCA (Toxic Substances Control Act) Lists:

5A(2): Chemical Subject to Significant New Rules (SNURS)
6A: Commercial Chemical Control Rules
8A: Toxic Substances Subject To Information Rules on Production
8A CAIR: Comprehensive Assessment Information Rules – (CAIR)
8A PAIR: Preliminary Assessment Information Rules – (PAIR)
8C: Records of Allegations of Significant Adverse Reactions
8D: Health and Safety Data Reporting Rules
8D TERM: Health and Safety Data Reporting Rule Terminations

Regulatory Information

Prop 65: This product does not contain a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

ARA Title III, Section 313: No chemicals are present in this product subject to the reporting requirements of Section 313.

New Jersey Right-To-Know: Water; Mineral Spirits CAS# 64742-47-8; Kaolin Clay CAS# 1332-58-7; Aminopoly siloxane CAS# 73892-00-9; Kerosene CAS# 8008-20-6; Isopropyl Alcohol CAS# 67-63-0.

PRODUCT CODE: 75732

PRODUCT NAME: Star brite Premium RV Polish with PTEF®

15. Regulatory Information (cont'd)

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes No Acute (immediate) Health Hazard
- Yes No Chronic (delayed) Health Hazard
- Yes No Fire Hazard
- Yes No Reactive Hazard
- Yes No Sudden Release of Pressure Hazard

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes all risk in use of the material.

16. Other Information

THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, EXCEPT THAT IS ACCURATE TO THE BEST KNOWLEDGE OF STAR BRITE. THE DATA ON THIS SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. STAR BRITE ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON THIS DATA.



Premium RV One Step HD Cleaner Wax

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Revision Date: 10/12/2015

Date of issue: 10/12/2015

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Premium RV One Step HD Cleaner Wax

Product Code: 796XX

Intended Use of the Product

Use of the Substance/Mixture: Polish.

Name, Address, and Telephone of the Responsible Party

Company

Star brite Inc.

4041 SW 47th Avenue

Fort Lauderdale, FL 33314

(954)587-6280

www.starbrite.com

Emergency Telephone Number

Emergency Number : US: (800) 424-9300; International: (703) 527-3887 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 3 H226

Skin Irrit. 2 H315

STOT SE 3 H336

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Warning

Hazard Statements (GHS-US)

: H226 - Flammable liquid and vapor.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

Precautionary Statements (GHS-US)

: P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P261 - Avoid breathing vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection, protective gloves, protective clothing.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a poison center or doctor if you feel unwell.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

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P362 - Take off contaminated clothing and wash before reuse.
P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P235 - Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Aquatic Acute 3

Aquatic Chronic 3

H402 - Harmful to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

P273 - Avoid release to the environment.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Kerosine, petroleum	(CAS No) 8008-20-6	10 – 30*	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Petroleum distillates, hydrotreated light	(CAS No) 64742-47-8	5 – 10*	Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Diatomaceous earth	(CAS No) 61790-53-2	5 – 10*	Not classified
Methyl alcohol	(CAS No) 67-56-1	< 0.1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 STOT SE 1, H370
Diethanolamine	(CAS No) 111-42-2	< 0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16

* A range of concentration as prescribed by Controlled Products Regulations has been used where necessary, due to varying composition. The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. In the event of an emergency, chemical identities and exact percentages of the proprietary ingredients may need to be disclosed to emergency personnel upon request.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

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Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye irritation. Vapors may cause drowsiness and dizziness.

Inhalation: May cause drowsiness or dizziness.

Skin Contact: Causes skin irritation.

Eye Contact: May cause eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Reacts with (strong) oxidizers: (increased) risk of fire.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Fighting Instructions: Do not allow run-off from fire fighting to enter drains or water courses.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Silicon oxides. Nitrogen compounds. Sulfur compounds. Iodine vapour.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Avoid all contact with skin, eyes, or clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Use only non-sparking tools.

Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

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Precautions for Safe Handling: Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s)

Polish.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Diatomaceous earth (61790-53-2)		
Mexico	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction)
British Columbia	OEL TWA (mg/m ³)	4 mg/m ³ (total dust) 1.5 mg/m ³ (respirable dust)
New Brunswick	OEL TWA (mg/m ³)	3 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction) 10 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica, inhalable fraction)
Ontario	OEL TWA (mg/m ³)	10 mg/m ³ (containing no Asbestos and <1% Crystalline silica-inhalable) 3 mg/m ³ (containing no Asbestos and <1% Crystalline silica-respirable)
Québec	VEMP (mg/m ³)	6 mg/m ³ (containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³ (inhalable fraction) 6 mg/m ³ (respirable fraction)
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction) 3 mg/m ³ (respirable fraction)
Kerosine, petroleum (8008-20-6)		
USA ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total hydrocarbon vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	100 mg/m ³
Alberta	OEL TWA (mg/m ³)	200 mg/m ³
British Columbia	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures)
Manitoba	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)
Newfoundland & Labrador	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)
Nova Scotia	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)

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		vapor)	
Ontario	OEL TWA (mg/m ³)	200 mg/m ³ (restricted to conditions where there is negligible aerosol exposure)	
Prince Edward Island	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total Hydrocarbon vapor)	
Saskatchewan	OEL STEL (mg/m ³)	250 mg/m ³	
Saskatchewan	OEL TWA (mg/m ³)	200 mg/m ³	
Methyl alcohol (67-56-1)			
Mexico	OEL TWA (mg/m ³)	260 mg/m ³	
Mexico	OEL TWA (ppm)	200 ppm	
Mexico	OEL STEL (mg/m ³)	310 mg/m ³	
Mexico	OEL STEL (ppm)	250 ppm	
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA ACGIH	ACGIH STEL (ppm)	250 ppm	
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route	
USA OSHA	OSHA PEL (TWA) (mg/m ³)	260 mg/m ³	
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm	
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	260 mg/m ³	
USA NIOSH	NIOSH REL (TWA) (ppm)	200 ppm	
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	325 mg/m ³	
USA NIOSH	NIOSH REL (STEL) (ppm)	250 ppm	
USA IDLH	US IDLH (ppm)	6000 ppm	
Alberta	OEL STEL (mg/m ³)	328 mg/m ³	
Alberta	OEL STEL (ppm)	250 ppm	
Alberta	OEL TWA (mg/m ³)	262 mg/m ³	
Alberta	OEL TWA (ppm)	200 ppm	
British Columbia	OEL STEL (ppm)	250 ppm	
British Columbia	OEL TWA (ppm)	200 ppm	
Manitoba	OEL STEL (ppm)	250 ppm	
Manitoba	OEL TWA (ppm)	200 ppm	
New Brunswick	OEL STEL (mg/m ³)	328 mg/m ³	
New Brunswick	OEL STEL (ppm)	250 ppm	
New Brunswick	OEL TWA (mg/m ³)	262 mg/m ³	
New Brunswick	OEL TWA (ppm)	200 ppm	
Newfoundland & Labrador	OEL STEL (ppm)	250 ppm	
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm	
Nova Scotia	OEL STEL (ppm)	250 ppm	
Nova Scotia	OEL TWA (ppm)	200 ppm	
Nunavut	OEL STEL (mg/m ³)	328 mg/m ³	
Nunavut	OEL STEL (ppm)	250 ppm	
Nunavut	OEL TWA (mg/m ³)	262 mg/m ³	
Nunavut	OEL TWA (ppm)	200 ppm	
Northwest Territories	OEL STEL (mg/m ³)	328 mg/m ³	
Northwest Territories	OEL STEL (ppm)	250 ppm	
Northwest Territories	OEL TWA (mg/m ³)	262 mg/m ³	
Northwest Territories	OEL TWA (ppm)	200 ppm	
Ontario	OEL STEL (ppm)	250 ppm	
Ontario	OEL TWA (ppm)	200 ppm	
Prince Edward Island	OEL STEL (ppm)	250 ppm	

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Prince Edward Island	OEL TWA (ppm)	200 ppm
Québec	VECD (mg/m ³)	328 mg/m ³
Québec	VECD (ppm)	250 ppm
Québec	VEMP (mg/m ³)	262 mg/m ³
Québec	VEMP (ppm)	200 ppm
Saskatchewan	OEL STEL (ppm)	250 ppm
Saskatchewan	OEL TWA (ppm)	200 ppm
Yukon	OEL STEL (mg/m ³)	310 mg/m ³
Yukon	OEL STEL (ppm)	250 ppm
Yukon	OEL TWA (mg/m ³)	260 mg/m ³
Yukon	OEL TWA (ppm)	200 ppm
Diethanolamine (111-42-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	15 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
Alberta	OEL TWA (mg/m ³)	2 mg/m ³
British Columbia	OEL TWA (mg/m ³)	2 mg/m ³
Manitoba	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
New Brunswick	OEL TWA (mg/m ³)	2 mg/m ³
New Brunswick	OEL TWA (ppm)	0.46 ppm
Newfoundland & Labrador	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
Nova Scotia	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
Nunavut	OEL STEL (mg/m ³)	26 mg/m ³
Nunavut	OEL STEL (ppm)	6 ppm
Nunavut	OEL TWA (mg/m ³)	13 mg/m ³
Nunavut	OEL TWA (ppm)	3 ppm
Northwest Territories	OEL STEL (mg/m ³)	26 mg/m ³
Northwest Territories	OEL STEL (ppm)	6 ppm
Northwest Territories	OEL TWA (mg/m ³)	13 mg/m ³
Northwest Territories	OEL TWA (ppm)	3 ppm
Ontario	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
Prince Edward Island	OEL TWA (mg/m ³)	1 mg/m ³ (inhalable fraction and vapor)
Québec	VEMP (mg/m ³)	13 mg/m ³
Québec	VEMP (ppm)	3 ppm
Saskatchewan	OEL STEL (mg/m ³)	4 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	2 mg/m ³
Petroleum distillates, hydrotreated light (64742-47-8)		
British Columbia	OEL TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures)

Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Use explosion-proof equipment. Take precautionary measures against static discharges. Gas detectors should be used when flammable gases/vapors may be released.

Personal Protective Equipment: Insufficient ventilation: wear respiratory protection. Safety glasses. Gloves. Protective clothing.



Materials for Protective Clothing: Wear fire/flame resistant/retardant clothing.

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Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear fireproof clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Cream
Odor	: Characteristic
Odor Threshold	: Not available
pH	: 7
Evaporation Rate	: Not available
Melting Point	: 0 °C (32 °F) (32 °F)
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: 59 °C (138.2 °F). Does not sustain combustion according to the Sustained Combustibility Test prescribed in part III, 32.5.2 of the <i>United Nations Manual of Tests and Criteria</i> .
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: 1.012 (water = 1)
Specific Gravity	: 1.012
Solubility	: Soluble in water.
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Reacts with (strong) oxidizers: (increased) risk of fire.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Silicon oxides. Nitrogen compounds. Sulfur compounds. Iodine vapour.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation.

GI: 7

Corrosive Eye Damage/Irritation: Not classified

pH: 7

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Respiratory or Skin Sensitization: Not classified
Chromosomal Cell Mutagenicity: Not classified
Genotoxicity: Not available
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): May cause drowsiness or dizziness.
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: May cause drowsiness or dizziness.
Symptoms/Injuries After Skin Contact: Causes skin irritation.
Symptoms/Injuries After Eye Contact: May cause eye irritation.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting.
Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Kerosine, petroleum (8008-20-6)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 5.28 mg/l/4h
Methyl alcohol (67-56-1)	
LC50 Inhalation Rat	22500 ppm (Exposure time: 8 h)
ATE US (oral)	100.00 mg/kg body weight
ATE US (dermal)	300.00 mg/kg body weight
ATE US (vapors)	3.00 mg/l/4h
Diethanolamine (111-42-2)	
LD50 Oral Rat	1820 mg/kg
Petroleum distillates, hydrotreated light (64742-47-8)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 5.2 mg/l/4h
Diatomaceous earth (61790-53-2)	
IARC Group	3
Diethanolamine (111-42-2)	
IARC Group	2B
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Kerosine, petroleum (8008-20-6)	
LC50 Fish 1	12 - 5 mg/kg (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
NOEC chronic fish	0.098 mg/l (PETROTOX, Klimmish score: 2)
Methyl alcohol (67-56-1)	
LC50 Fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC 50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Diethanolamine (111-42-2)	
LC50 Fish 1	4460 (4460 - 4980) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	55 mg/l (Exposure time: 48 h - Species: Daphnia magna)

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LC50 Fish 2	1200 (1200 - 1580) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 Other Aquatic Organisms 2	2.1 (2.1 - 2.3) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)
erC50 (algae)	2.2 mg/l (Exposure time: 96 h - Species: Pseudokirchnerella subcapitata [Static])
Petroleum distillates, hydrotreated light (64742-47-8)	
LC50 Fish 1	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC 50 Fish 2	2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Persistence and Degradability	
Premium RV One Step HD Cleaner Wax	
Persistence and Degradability	Not established.
Bioaccumulative Potential	
Premium RV One Step HD Cleaner Wax	
Bioaccumulative Potential	Not established.
Methyl alcohol (67-56-1)	
BCF Fish 1	< 10
Log Pow	-0.77
Diethanolamine (111-42-2)	
BCF Fish 1	(no significant bioconcentration)
Log Pow	-2.18 (at 25 °C)
Petroleum distillates, hydrotreated light (64742-47-8)	
BCF Fish 1	61 - 159

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG/IMDG

UN Number Not regulated for transport

UN Proper Shipping Name Not regulated for transport

Transport Hazard Class(es) Not regulated for transport

Transport by sea Not regulated for transport

In Accordance With IMDG Not regulated for transport

In Accordance With IATA/ICAO Not regulated for transport

In Accordance With TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes

Fire hazard

Immediate (acute) health hazard

Diatomaceous earth (61790-53-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Kerosine, petroleum (8008-20-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

***Methyl alcohol (67-56-1)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313

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SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard Fire hazard	
SARA Section 313 - Emission Reporting	1.0 %	
Diethanolamine (111-42-2)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Listed on United States SARA Section 313		
SARA Section 313 - Emission Reporting	1.0 %	
Petroleum distillates, hydrotreated light (64742-47-8)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	
US State Regulations		
Methyl alcohol (67-56-1)		
U.S. - California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.	
Diethanolamine (111-42-2)		
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.	
Diatomaceous earth (61790-53-2)		
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations		
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)		
U.S. - Idaho - Occupational Exposure Limits - Mineral Dusts		
U.S. - Michigan - Occupational Exposure Limits - TWAs		
U.S. - Minnesota - Hazardous Substance List		
U.S. - Minnesota - Permissible Exposure Limits - TWAs		
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List		
U.S. - New York - Occupational Exposure Limits - Mineral Dusts		
U.S. - New York - Occupational Exposure Limits - TWAs		
U.S. - Oregon - Permissible Exposure Limits - Mineral Dusts		
U.S. - Tennessee - Occupational Exposure Limits - TWAs		
U.S. - Texas - Effects Screening Levels - Long Term		
U.S. - Texas - Effects Screening Levels - Short Term		
U.S. - Washington - Permissible Exposure Limits - STELs		
U.S. - Washington - Permissible Exposure Limits - TWAs		
Kerosene, petroleum (8008-20-6)		
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)		
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)		
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1		
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2		
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity		
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1		
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2		
RTK - U.S. - Massachusetts - Right To Know List		
U.S. - Minnesota - Chemicals of High Concern		
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour		
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual		
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances		
U.S. - New Jersey - Environmental Hazardous Substances List		
TK - U.S. - New Jersey - Right to Know Hazardous Substance List		
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour		
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups		

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RTK - U.S. - Pennsylvania - RTK (Right to Know) List
S. - Texas - Effects Screening Levels - Long Term
S. - Texas - Effects Screening Levels - Short Term

Methyl alcohol (67-56-1)

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Connecticut - Volatile Substances
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Maine - Chemicals of High Concern
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - Skin Designations
U.S. - Michigan - Occupational Exposure Limits - STELs
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Groundwater Health Risk Limits
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - Skin Designations
U.S. - Minnesota - Permissible Exposure Limits - STELs
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.S. - New York - Occupational Exposure Limits - Skin Designations
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour

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U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
U.S. - Tennessee - Occupational Exposure Limits - Skin Designations
U.S. - Tennessee - Occupational Exposure Limits - STELs
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - Skin Designations
U.S. - Vermont - Permissible Exposure Limits - STELs
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Dangerous Waste - Discarded Chemical Products List
U.S. - Washington - Permissible Exposure Limits - Skin Designations
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs

Diethanolamine (111-42-2)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Illinois - Toxic Air Contaminant Carcinogens
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
RTK - U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
K - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual



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<p>U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories U.S. - Tennessee - Occupational Exposure Limits - TWAs U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term U.S. - Vermont - Permissible Exposure Limits - TWAs U.S. - Washington - Permissible Exposure Limits - STELs U.S. - Washington - Permissible Exposure Limits - TWAs U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet</p>	
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<p>Petroleum distillates, hydrotreated light (64742-47-8) U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term</p>	
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<p>Canadian Regulations</p>	
<p>Premium RV One Step HD Cleaner Wax</p>	
<p>WHMIS Classification</p>	<p>Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects</p>
 	

<p>Diatomaceous earth (61790-53-2) Listed on the Canadian NDSL (Non-Domestic Substances List)</p>	
<p>WHMIS Classification</p>	<p>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects</p>

<p>Kerosine, petroleum (8008-20-6) Listed on the Canadian DSL (Domestic Substances List)</p>	
<p>WHMIS Classification</p>	<p>Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects</p>

<p>Methyl alcohol (67-56-1) Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)</p>	
<p>IDL Concentration 1 %</p>	
<p>WHMIS Classification</p>	<p>Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects</p>

<p>Diethanolamine (111-42-2) Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)</p>	
<p>IDL Concentration 1 %</p>	
<p>WHMIS Classification</p>	<p>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects</p>

<p>Petroleum distillates, hydrotreated light (64742-47-8) Listed on the Canadian DSL (Domestic Substances List)</p>	
<p>WHMIS Classification</p>	<p>Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects</p>

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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 10/12/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H370	Causes damage to organs
H373	May cause damage to organs through prolonged or repeated exposure

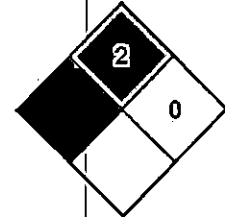
Premium RV One Step HD Cleaner Wax

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

- NFPA Health Hazard** : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA Fire Hazard** : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
- NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Party Responsible for the Preparation of This Document

Starbrite®

Phone Number: (954)587-6280

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: RELIABLE INSTANT SHINE

Other means of identification

SDS number: RE1000007576

Recommended restrictions

Recommended use: Coating

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: RELIABLE PRODUCTS
Address: 639 FITCH STREET
ONEIDA, NY 13421
US

Telephone: 315-363-9202

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Skin Corrosion/Irritation Category 2

Toxic to reproduction Category 2

Specific Target Organ Toxicity -
Single Exposure Category 3
(Narcotic effect.)

Specific Target Organ Toxicity -
Repeated Exposure Category 2

Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic
environment Category 2

Chronic hazards to the aquatic
environment Category 2

Label Elements

Hazard Symbol:



Signal Word:

Danger

Hazard Statement:	Extremely flammable aerosol. Causes skin irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.
Precautionary Statements	
Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of water If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing. Collect spillage.
Storage:	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Hexane	110-54-3	25 - <50%
Butane	106-97-8	20 - <50%
Siloxanes and Silicones, di-Me	63148-62-9	10 - <25%
Propane	74-98-6	5 - <10%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

Inhalation:	Move to fresh air.
Skin Contact:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.

Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Ingestion:	Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Personal Protection for First-aid Responders:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Most important symptoms/effects, acute and delayed	
Symptoms:	No data available.
Hazards:	No data available.
Indication of immediate medical attention and special treatment needed	
Treatment:	Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Vapors may travel considerable distance to a source of ignition and flash back.
Special protective equipment and precautions for firefighters	
Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
Accidental release measures:	Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): No data available.

Safe handling advice: Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

Safe packaging materials: No data available.

Storage Temperature: No data available.

8. Exposure controls/personal protection

**Control Parameters
Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Hexane	TWA	50 ppm 180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	500 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	50 ppm 180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Butane	TWA	50 ppm	US. ACGIH Threshold Limit Values, as amended
	REL	800 ppm 1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values, as amended
Propane	TWA	800 ppm 1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	1,000 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Cyclohexane	TWA	100 ppm	US. ACGIH Threshold Limit Values, as amended
	TWA	300 ppm 1,050 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	300 ppm 1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Heptane	REL	300 ppm 1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	400 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	85 ppm 350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

	TWA	400 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	500 ppm		US. ACGIH Threshold Limit Values, as amended
	Ceiling	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
White mineral oil (petroleum) - Mist.	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
White mineral oil (petroleum) - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended
Solvent naphtha (petroleum), light aliph.	TWA	100 ppm	400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	PEL	100 ppm	400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	REL	100 ppm	400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, dimethyl-	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	150 ppm	655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, methyl-	STEL	150 ppm	560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	100 ppm	375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	STEL	125 ppm	545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	MAX. CONC	50 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended
	STEL	1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Naphthalene	STEL	15 ppm	75 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	REL	10 ppm	50 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	PEL	10 ppm	50 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
	TWA	10 ppm	50 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	TWA	10 ppm		US. ACGIH Threshold Limit Values, as amended
	STEL	15 ppm	75 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEL
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL

Exposure guidelines

Hexane	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Benzene	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.
Naphthalene	US. ACGIH Threshold Limit Values, as amended	Can be absorbed through the skin.

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection:

Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection:

No data available.

Skin and Body Protection:

Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures:

Observe good industrial hygiene practices. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:

liquid

Form:

Spray Aerosol

Color:

No data available.

Odor:

No data available.

<p>Odor Threshold: pH: Freezing point: Boiling Point: Flash Point: Evaporation Rate: Flammability (solid, gas): Explosive limit - upper (%): Explosive limit - lower (%): Vapor pressure: Vapor density (air=1): Density: Relative density: Solubility in Water: Solubility (other): Partition coefficient (n-octanol/water): Self Ignition Temperature: Decomposition Temperature: Kinematic viscosity: Dynamic viscosity: Explosive properties: Oxidizing properties:</p>	<p>No data available. No data available. No data available. No data available. Estimated -104.44 °C No data available. No data available. Estimated 9.5 %(V) Estimated 1.9 %(V) 2,068 - 3,447 hPa (20 °C) No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available.</p>
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10. Stability and reactivity

<p>Reactivity: Chemical Stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible Materials: Hazardous Decomposition Products:</p>	<p>No data available. Material is stable under normal conditions. No data available. Avoid heat or contamination. No data available. No data available.</p>
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11. Toxicological information

<p>Information on likely routes of exposure Inhalation: Skin Contact: Eye contact: Ingestion:</p> <p>Symptoms related to the physical, chemical and toxicological characteristics Inhalation: Skin Contact: Eye contact: Ingestion:</p>	<p>No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available. No data available.</p>
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Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix: 2,059.1 mg/kg

Dermal

Product: ATEmix: 2,059.04 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Components:

Hexane

NOAEL (Mouse(Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation
Experimental result, Key study

LOAEL (Mouse(Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation
Experimental result, Key study

LOAEL (Rat(Male), Inhalation, 16 Weeks): 3,000 ppm(m) Inhalation
Experimental result, Key study

LOAEL (Mouse(Female), Inhalation, 13 Weeks): 500 ppm(m) Inhalation
Experimental result, Key study

Butane

LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation
Experimental result, Key study

NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation
Experimental result, Key study

Propane

NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation
Experimental result, Key study

LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation
Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Components:

Hexane

Review Irritating.

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Hexane

Rabbit, 1 - 72 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity	
Product:	No data available.
Components:	
Hexane	Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity	Single Exposure
Product:	Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Specific Target Organ Toxicity	Repeated Exposure
Product:	No data available.
Components:	
Hexane	Inhalation - vapor: Nervous System - Category 2
Target Organs	
Specific Target Organ Toxicity - Single Exposure:	Narcotic effect.
Aspiration Hazard	
Product:	No data available.
Components:	
Hexane	May be fatal if swallowed and enters airways.
Other effects:	No data available.

12. Ecological information

Ecotoxicity:	
Acute hazards to the aquatic environment:	
Fish	
Product:	No data available.
Components:	
Hexane	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l Mortality
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Siloxanes and Silicones, di-Me	LC 50 (Redear sunfish (Lepomis microlophus), 96 h): 26.27 - 56.73 mg/l Mortality
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Aquatic Invertebrates	
Product:	No data available.
Components:	
Hexane	EC 50 (Daphnia magna, 48 h): 21.85 mg/l QSAR QSAR, Key study LC 50 (Water flea (Daphnia magna), 24 h): > 50 mg/l Mortality
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Siloxanes and Silicones, di-Me	LC 50 (Water flea (Daphnia magna), 48 h): 44.5 mg/l Mortality
Chronic hazards to the aquatic environment:	
Fish	
Product:	No data available.
Components:	
Hexane	NOAEL (Oncorhynchus mykiss): 2.8 mg/l QSAR QSAR, Key study

<p>Aquatic Invertebrates Product:</p> <p>Components: Hexane</p> <p>Toxicity to Aquatic Plants Product:</p> <p>Persistence and Degradability Biodegradation Product:</p> <p>Components: Hexane</p> <p>Butane</p> <p>Propane</p> <p>BOD/COD Ratio Product:</p> <p>Bioaccumulative potential Bioconcentration Factor (BCF) Product:</p> <p>Components: Hexane</p> <p>Partition Coefficient n-octanol / water (log Kow) Product:</p> <p>Mobility in soil:</p> <p>Components: Hexane Butane Siloxanes and Silicones, di-Me Propane</p> <p>Other adverse effects:</p>	<p>No data available.</p> <p>NOAEL (Daphnia magna): 4.888 mg/l QSAR QSAR, Key study</p> <p>No data available.</p> <p>No data available.</p> <p>81 % Detected in water. Read-across based on grouping of substances (category approach), Key study</p> <p>100 % (385.5 h) Detected in water. Experimental result, Key study</p> <p>100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study</p> <p>No data available.</p> <p>No data available.</p> <p>Pimephales promelas, Bioconcentration Factor (BCF): 501.19 Aquatic sediment QSAR, Key study</p> <p>No data available.</p> <p>No data available.</p> <p>No data available. No data available. No data available. No data available.</p> <p>Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.</p>	
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13. Disposal considerations

<p>Disposal instructions:</p> <p>Contaminated Packaging:</p>	<p>Discharge, treatment, or disposal may be subject to national, state, or local laws.</p> <p>No data available.</p>
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14. Transport information

DOT

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2.1
Label(s): -
EmS No.:
Packing Group: II
Special precautions for user: Not regulated.

IATA

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): -
Packing Group: -
Special precautions for user: Not regulated.
Other information
Passenger and cargo aircraft: Allowed. 203
Cargo aircraft only: Allowed. 203

IMDG

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2
Label(s): -
EmS No.: F-D, S-U
Packing Group: -
Special precautions for user: Not regulated.

15. Regulatory information

US Federal Regulations

Restrictions on use: Not known.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

Chemical Identity

Benzene

OSHA hazard(s)

Flammability
Cancer
Aspiration
Eye
Blood
Skin
respiratory tract irritation
Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

HEXANE
UNLISTED HAZARDOUS WASTES CHARACTERISTIC OF IGNITABILITY
RCRA HAZARDOUS WASTE NO. D001
CYCLOHEXANE
BENZENE, HEXAHYDRO-
XYLENE (MIXED)
BENZENE, METHYL-
ETHYLBENZENE
BENZENE
NAPHTHALENE

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure), Aspiration Hazard

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Chemical Identity

Hexane

% by weight

1.0%

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

For more information go to www.P65Warnings.ca.gov.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Hexane
Butane
Cyclopentane, methyl-
Propane
White mineral oil (petroleum)

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Hexane
Butane
Cyclopentane, methyl-
Propane

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Hexane

Stockholm convention

Hexane

Rotterdam convention Hexane	
Kyoto protocol	
Inventory Status:	
Australia AICS	Not in compliance with the inventory.
Canada DSL Inventory List	On or in compliance with the inventory
EINECS, ELINCS or NLP	Not in compliance with the inventory.
Japan (ENCS) List	Not in compliance with the inventory.
China Inv. Existing Chemical Substances	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI)	Not in compliance with the inventory.
Canada NDSL Inventory	Not in compliance with the inventory.
Philippines PICCS	Not in compliance with the inventory.
US TSCA Inventory	On or in compliance with the inventory
New Zealand Inventory of Chemicals	Not in compliance with the inventory.
Japan ISHL Listing	Not in compliance with the inventory.
Japan Pharmacopoeia Listing	Not in compliance with the inventory.
Mexico INSQ	Not in compliance with the inventory.
Ontario Inventory	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

Issue Date:	08/31/2020
Revision Information:	No data available.
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

Safety Data Sheet



1. Identification

Product Name:	SPECLT SSPP 6PK EPOXY GLOSS WHITE	Revision Date:	10/5/2023
Product Identifier:	7881830	Supercedes Date:	2/21/2023
Recommended Use:	Topcoat/Aerosols		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazards Identification

Classification

Symbol(s) of Product



Signal Word

Danger

Possible Hazards

29% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Eye Irritation, category 2A	H319	Causes serious eye irritation.
STOT, Single Exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Reproductive Toxicity, category 1B	H360	May damage fertility or the unborn child.
STOT, Repeated Exposure, category 2	H373	May cause damage to organs.
Gases under Pressure; Compressed Gas	H280	Contains gas under pressure; may explode if heated.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P405	Store locked up.

Specialty Appliance Epoxy Gloss White

P501	Dispose of contents and container in accordance with local, regional and national regulations.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
108+P313	IF exposed or concerned: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P317	Get medical help.
P319	Get medical help if you feel unwell.
P337+P317	If eye irritation persists: Get medical help.

3. Composition / Information on Ingredients

HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Propane	74-98-6	10-25	GHS04	H280
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
Acetone	67-64-1	10-25	GHS02-GHS07	H225-319-332-336
Titanium Dioxide	13463-67-7	10-25	Not Available	Not Available
Dimethyl Carbonate	616-38-6	2.5-10	GHS02-GHS06	H225-331
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- Isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
thyl 3-Ethoxypropionate	763-69-9	1.0-2.5	GHS06	H331
Hydrotreated Light Distillate	64742-47-8	1.0-2.5	GHS08	H304
Barium Sulfate	7727-43-7	1.0-2.5	GHS07	H332
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07-GHS08	H225-304-332-351-373
Solvent Naphtha, Light Aromatic	64742-95-6	0.1-1.0	GHS07-GHS08	H304-332
Zirconium 2-Ethylhexanoate	22464-99-9	0.1-1.0	GHS07-GHS08	H315+H320-360
Zirconium Acetate	5153-24-2	<0.1	Not Available	Not Available

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed. Remove contact lenses, if present and easy to do. Continue rinsing.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Treat symptomatically and supportively. Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Aqueous Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. **FLASH POINT IS LESS THAN -7°C (20°F). EXTREMELY FLAMMABLE LIQUID AND VAPOR!**

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent buildup of steam. Full protective equipment including self-contained breathing apparatus should be used. If water is used, fog nozzles are preferred. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): Not a combustible dust.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. **DO NOT** use combustible materials such as sawdust. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Do not get in eyes, on skin or clothing. Do not puncture or incinerate (burn) container, even after use.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120°F (49°C). Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120°F (49°C).

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	15.0	50 ppm	150 ppm	150 ppm	N.E.
Acetone	67-64-1	15.0	250 ppm	500 ppm	1000 ppm	N.E.
Titanium Dioxide	13463-67-7	15.0	0.2 mg/m3	N.E.	15 mg/m3	N.E.
Dimethyl Carbonate	616-38-6	10.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	10.0	20 ppm	N.E.	100 ppm	N.E.
Ethyl 3-Ethoxypropionate	763-69-9	5.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	1.0	N.E.	N.E.	N.E.	N.E.
Zirconium 2-Ethylhexanoate	22464-99-9	1.0	5 mg/m3	10 mg/m3	5 mg/m3	N.E.
Zirconium Acetate	5153-24-2	0.1	5 mg/m3	10 mg/m3	5 mg/m3	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be allowed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin.

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EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Specific Gravity:	0.844	pH:	N.A.
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Slight	Partition Coefficient, n-octanol/ water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	0.8 - 13.0
Boiling Range, °C:	-37 - 537	Flash Point, °C:	-96
Flammability:	Supports Combustion	Auto-Ignition Temp., °C:	N.D.
Evaporation Rate:	Faster than Ether	Vapor Pressure:	N.D.
Vapor Density:	Heavier than Air		

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

Conditions to Avoid: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition. Avoid excess heat. Keep from freezing.

Incompatibility: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

Hazardous Decomposition: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Can cause severe eye irritation. Causes eye and skin irritation which may lead to dermatitis with repeated exposures. Irritating, and may injure eye tissue if not removed promptly.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. Low hazard for usual industrial handling or commercial handling by trained personnel.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs.

EFFECTS OF OVEREXPOSURE - INGESTION: Substance may be harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) May cause genetic defects. May damage fertility or the unborn child.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat

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67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	6000	N.E.
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	>5.36 mg/L Rat
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
33-69-9	Ethyl 3-Ethoxypropionate	5000 mg/kg Rat	>9500 mg/kg Rabbit	>5.96 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
7727-43-7	Barium Sulfate	307000 mg/kg Rat	N.E.	N.E.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.E.

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. No ecotoxicity data was found for this product.

13. Disposal Information

DISPOSAL: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not incinerate closed containers. This product as supplied is a US EPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation. EPA Hazardous Waste Number (RCRA): D005 (Barium). Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 100.0 mg/L.

14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint and Related Spray Products in Ltd Qty	Aerosols	Aerosols, flammable	Aerosols
Hazard Class:	N.A.	2	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Reproductive toxicity, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

SARA Section 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Xylenes (o-, m-, p- Isomers)	1330-20-7
Barium Sulfate	7727-43-7
Ethylbenzene	100-41-4

Copper phthalocyaninesulfonic acid,
dioctadecyldimethylammonium salt

70750-63-9

Toxic Substances Control Act

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:

California Proposition 65

WARNING:

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

16. Other Information

HMIS RATINGS

Health: 2* Flammability: 4 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 4 Instability: 0

Maximum Incremental Reactivity: 0.94

SDS REVISION DATE: 10/5/2023

REASON FOR REVISION:

Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
03 - Composition / Information on Ingredients
05 - Fire-Fighting Measures
15 - Regulatory Information
Substance Hazard Threshold % Changed
Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.D. - Not Determined, N.E. - Not Established

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



1. Identification

Product Name:	CC 128OZ 4PK MOLD CONTROL	Revision Date:	9/19/2019
Product Identifier:	25001	Supercedes Date:	9/17/2019
Recommended Use:	Biocidal Products		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Siamons International, Inc. 48 Galaxy Blvd., Unit 413 Toronto, ON M9W 6C8 Canada Phone: 001-416-213-0219 Toll Free: 1-866-811-4148		Siamons International, Inc. 48 Galaxy Blvd., Unit 413 Toronto, ON M9W 6C8 Canada Phone: 001-416-213-0219 Toll Free: 1-866-811-4148
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazard Identification

Classification
Symbol(s) of Product
 No symbol is required per 2012 OSHA Hazard Communication Standard 29 CFR 1910.1200.

Signal Word
 No Signal Word has been assigned.

Possible Hazards
 1% of the mixture consists of ingredient(s) of unknown acute toxicity.

3. Composition / Information On Ingredients

HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Trisodium phosphate	7601-54-9	1.0-2.5	GHS06	H311-332

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention. If swallowed, rinse mouth with water. If feeling unwell, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: None Known

UNUSUAL FIRE AND EXPLOSION HAZARDS: No unusual fire or explosion hazards noted. Keep containers tightly closed. FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Trisodium phosphate	7601-54-9	5.0	N.E.	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Liquid	Physical State:	Liquid
Odor:	Characteristic	Odor Threshold:	N.E.
Specific Gravity:	1.010	pH:	11.1 - 11.5
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Soluble	Partition Coefficient, n-octanol/ water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	N.A. - N.A.
Boiling Range, °C:	100 - 537	Flash Point, °C:	94
Flammability:	Does not Support Combustion	Auto-ignition Temp., °C:	N.D.
Evaporation Rate:	Slower than Ether	Vapor Pressure:	N.D.
Vapor Density:	Heavier than Air		

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: No Information

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalis.

HAZARDOUS DECOMPOSITION: When heated to decomposition, it emits acrid smoke and irritating fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Irritating, and may injure eye tissue if not removed promptly.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Low hazard for usual industrial handling or commercial handling by trained personnel.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist.

EFFECTS OF OVEREXPOSURE - INGESTION: Substance may be harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information

PRIMARY ROUTE(S) OF ENTRY: No Information

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
7601-54-9	Trisodium phosphate	>2000 mg/kg Rat	>300 mg/kg Rabbit	N.E.

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances.

14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	N.A.	N.A.	N.A.
Proper Shipping Name:	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Hazard Class:	N.A.	N.A.	N.A.	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	No	No	No	No

15. Regulatory Information**U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

None Known

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:**California Proposition 65:**

WARNING: No Prop. 65 warning is required.

16. Other Information**HMS RATINGS**

Health: 2* Flammability: 1 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 1 Instability: 0

Volatile Organic Compounds 0.00%

SDS REVISION DATE: 9/19/2019

REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet



RUST-OLEUM CORPORATION

* Trusted Quality Since 1921 *

www.rustoleum.com

1. Identification

Product Name:	SPECLT GLOSS APPLIANCE TOUCH-UP WHITE	Revision Date:	8/10/2017
Product Identifier:	203000	Supersedes Date:	8/25/2016
Product Use/Class:	Touch-Up Paint/Appliance		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	Manufacturer:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazard Identification

Classification

Symbol(s) of Product



Signal Word

Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 2

Reproductive Toxicity, category 2

STOT, single exposure, category 3, NE

STOT, repeated exposure, category 2

Skin Irritation, category 2

Skin Sensitizer, category 1

H225

Highly flammable liquid and vapour.

H361

Suspected of damaging fertility or the unborn child.

H336

May cause drowsiness or dizziness.

H373

May cause damage to organs through prolonged or repeated exposure.

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378

In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container in accordance with local, regional and national regulations.

P201

Obtain special instructions before use.

308+P313

IF exposed or concerned: Get medical advice/attention.

405

Store locked up.

P271

Use only outdoors or in a well-ventilated area.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312
P403+P233
P260
P264
P302+P352
P321
P332+P313
P362+P364
P272
P333+P313

Call a POISON CENTER or doctor/physician if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
IF ON SKIN: Wash with plenty of soap and water.
For specific treatment see label
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
If skin irritation or rash occurs: Get medical advice/attention.

GHS SDS PRECAUTIONARY STATEMENTS

P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P363 Wash contaminated clothing before reuse.

3. Composition / Information On Ingredients**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.% Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
1-Methoxy-2-Propyl Acetate	108-65-6	25-50	GHS02	H226
Toluene	108-88-3	10-25	GHS02-GHS07-GHS08	H225-304-315-332-336-361-373
Titanium Dioxide	13463-67-7	10-25	Not Available	Not Available
Amorphous Silica	7631-86-9	1.0-2.5	Not Available	Not Available
Hydrotreated Light Distillate	64742-47-8	1.0-2.5	GHS08	H304
Stoddard Solvent	8052-41-3	0.1-1.0	GHS08	H304-372
Butyl Methacrylate	97-88-1	0.1-1.0	GHS02-GHS07	H226-315-317-319-332-335

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: Isolate from heat, electrical equipment, sparks and open flame. Vapors can travel to source of ignition and flash back. Vapors may form explosive mixtures with air. No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Eliminate all ignition sources; use explosion-proof equipment. Place material in a container and dispose of according to local, provincial, state and federal regulations. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Remove contaminated clothing and launder before reuse. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Avoid excess heat. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids.

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
1-Methoxy-2-Propyl Acetate	108-65-6	40.0	N.E.	N.E.	N.E.	N.E.
Toluene	108-88-3	25.0	20 ppm	N.E.	200 ppm	300 ppm
Titanium Dioxide	13463-67-7	20.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Amorphous Silica	7631-86-9	5.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Butyl Methacrylate	97-88-1	1.0	N.E.	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or in any other circumstances where air purifying respirators may not provide adequate protection.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Liquid	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Relative Density:	1.125	pH:	N.A.
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Negligible	Partition Coefficient, n-octanol/ water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	1.2 - 7.1
Boiling Range, °C:	106 - 169	Flash Point, °C:	13
Flammability:	Supports Combustion	Auto-ignition Temp., °C:	N.D.
Evaporation Rate:	Slower than Ether	Vapor Pressure:	N.D.
Vapor Density:	Heavier than Air		

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid all possible sources of ignition. Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May be absorbed through the skin in harmful amounts. Prolonged or repeated skin contact may cause irritation. Causes skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. May cause headaches and dizziness. High vapor concentrations are irritating to the eyes, nose, throat and lungs. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
108-65-6	1-Methoxy-2-Propyl Acetate	8532 mg/kg Rat	>5000 mg/kg Rabbit	N.I.
108-88-3	Toluene	2600 mg/kg Rat	12000 mg/kg Rabbit	12.5 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.I.
7631-86-9	Amorphous Silica	>5000 mg/kg Rat	>2000 mg/kg Rabbit	25 mg/L
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
97-88-1	Butyl Methacrylate	16000 mg/kg Rat	10181 mg/kg Rabbit	N.I.

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	1263	1263	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Paint	Paint	Paint Products in Limited Quantities
Hazard Class:	N.A.	3	3	N.A.
Packing Group:	N.A.	II	II	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information**U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

No Information

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name

Toluene

CAS-No.

108-88-3

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information**HMIS RATINGS**

Health: 2* Flammability: 3 Physical Hazard: 0 Personal Protection: X

NFPA RATINGS

Health: 2 Flammability: 3 Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 669

SDS REVISION DATE: 8/10/2017

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
05 - Fire-fighting Measures
09 - Physical & Chemical Properties
15 - Regulatory Information
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS484

PRODUCT NAME: Prestone® DexCool 50/50 Prediluted Extended Life Antifreeze/Coolant

PRODUCT NUMBER: 71159, AF850, AF850-55, 88862645, 88864314, 88864315, 9986100-1KL, AF850-55/F-M1, AF850/2F, 71159/2F, 71159/2FC, 71159/2FC3, AF850/XF, AF850-72/F

FORMULA NUMBER: YA-956B-P50, YA-956B-P50-B

MANUFACTURER:

Prestone Products
Corporation
69 Eagle Rd.
Danbury, CT 06810

CANADIAN OFFICE:

Prestone Canada
33 MacIntosh Blvd.
Concord, ON L4K 4L5

MEXICO OFFICE:

ASG Operations Mexico S. de R.L. de C.V.
Carretera Mexico Cuautitlan, Kilometro 31.5, Nave
Industrial 5,
Loma Bonita, Cuautitlan, Mexico, 54800

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(888)269-0750 (in the US and Canada)

01-800-715-4135 (in Mexico)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US and Canada) +1 703 741-5970 (outside the US and Canada)

PRODUCT USE: Automobile Antifreeze – consumer product

RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS/HAZCOM 2012 Classification:

Health	Physical
Acute Toxicity Category 4 Specific Target Organ Toxicity – Repeated Exposure Category 2 Toxic to Reproductive Category 2	Not Hazardous

Label Elements



WARNING!

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

H373 May cause damage to kidneys through prolonged or repeated exposure.

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist or vapors.



P264 Wash exposed skin thoroughly after handling.
 P270 Do not eat, drink, or smoke when using this product.
 P280 Wear protective gloves and eye protection.
Response:
 P301 + P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
 P330 Rinse mouth.
 P308 + P313 IF exposed or concerned: Get medical advice.
Disposal:
 P405 Store locked up.
 P501 Dispose of contents and container in accordance with local and national regulations.

3. Composition/Information on Ingredients

Component	CAS No.	Amount
Ethylene Glycol	107-21-1	30-60%
Water	7732-18-5	30-60%
2-Ethyl Hexanoic Acid, Sodium Salt	19766-89-3	1-5%
Diethylene Glycol	111-46-6	0-5%

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: Remove the victim to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, have medical personnel administer oxygen. Get medical attention.

SKIN CONTACT: Remove contaminated clothing. Immediately wash contacted area thoroughly with soap and water. If irritation persists, get medical attention.

EYE CONTACT: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

INGESTION: Seek immediate medical attention. Immediately call local poison control center or go to an emergency department. Never give anything by mouth to or induce vomiting in an unconscious or drowsy person.

MOST IMPORTANT SYMPTOMS: May cause eye irritation. Inhalation of mists may cause nose and throat irritation and nervous system effects. Ingestion may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects. May cause developmental effects based on animal data.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Seek immediate medical attention for large ingestions.

NOTES TO PHYSICIAN: The principal toxic effects of ethylene glycol, when swallowed, are kidney damage and metabolic acidosis. The combination of metabolic acidosis, an osmol gap and oxalate crystals in the urine is evidence of ethylene glycol poisoning. Pulmonary edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. Respiratory support with mechanical ventilation may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects have been reported involving the seventh, eighth, and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing and dysphagia.

Ethanol is antidotal and its early administration may block the formation of nephrotoxic metabolites of ethylene glycol in the liver. The objective is to rapidly achieve and maintain a blood ethanol level of approximately 100 mg/dl by giving a loading dose of ethanol followed by a maintenance dose. Intravenous administration of ethanol is the preferred route. Ethanol blood

**PRESTONE® DexCool 50/50 Prediluted
Extended Life ANTIFREEZE/COOLANT**

Date Prepared: 09/17/2019

levels should be checked frequently. Hemodialysis may be required. 4-Methyl pyrazole (Fomepizole®), a potent inhibitor of alcohol dehydrogenase, has been used therapeutically to decrease the metabolic consequences of ethylene glycol poisoning. Fomepizole® is easier to use clinically than ethanol, does not cause CNS depression or hypoglycemia and requires less monitoring than ethanol. Additional therapeutic modalities which may decrease the adverse consequences of ethylene glycol metabolism are the administration of both thiamine and pyridoxine. As there are complicated and serious overdoses, we recommend you consult with the toxicologists at your poison control center.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: For large fires, use alcohol type or all-purpose foams. For small fires, use water spray, carbon dioxide or dry chemical.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: A solid stream of water or foam directed into hot, burning liquid can cause frothing. Burning may produce carbon monoxide and carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Do not spray pool fires directly. Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect with absorbent material and place in appropriate, labeled container for disposal or, if permitted flush spill area with water.

7. Handling and Storage**PRECAUTIONS FOR SAFE HANDLING:**

Harmful or Fatal if Swallowed. Do not drink antifreeze or solution. Avoid eye and prolonged or repeated skin contact. Avoid breathing vapors or mists. Wash exposed skin thoroughly with soap and water after use. Do not store in opened or unlabeled containers. Keep container away from open flames and excessive heat. Do not reuse empty containers unless properly cleaned. Empty containers retain product residue and may be dangerous. Do not cut, weld, drill, etc. containers, even empty.

Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without any obvious ignition sources. Published "autoignition" or "ignition" temperatures cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Use of this product in elevated temperature applications should be thoroughly evaluated to assure safe operating conditions.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store away from excessive heat and oxidizers.

NFPA CLASSIFICATION: IIIB (May qualify for the following consumer quantity exemption: Consumer products that contain not more than 50 percent by volume of water-miscible flammable or combustible liquids, with the remainder of the product consisting of components that do not burn and where packaged in individual containers that do not exceed 1.3 gal (5 L) capacity.)



8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

CHEMICAL	EXPOSURE LIMIT
Ethylene Glycol	25 ppm TWA, 50 ppm STEL ACGIH TLV (as vapor) 10 mg/m ³ TWA ACGIH TLV (as inhalable fraction of the aerosol)
Diethylene Glycol	10 mg/m ³ TWA AIHA WEELs
2-Ethyl Hexanoic Acid	None Established

APPROPRIATE ENGINEERING CONTROLS: Use general ventilation or local exhaust as required to maintain exposures below the occupational exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: For operations where the exposure limit is exceeded a NIOSH approved respirator with organic vapor cartridges and dust/mist prefilters or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select and use in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Chemical resistant gloves such as neoprene or PVC where contact is possible.

EYE PROTECTION: Splash-proof goggles.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact.

9. Physical and Chemical Properties

APPEARANCE:	Orange liquid	ODOR:	Characteristic odor
ODOR THRESHOLD:	None	pH:	9.0
MELTING/FREEZING POINT:	-34°F (-36°C)	BOILING POINT/RANGE:	229°F (109°C)
FLASH POINT:	>220°F (104°C)	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not Applicable	FLAMMABILITY LIMITS:	LEL: Not determined UEL: Not determined
VAPOR PRESSURE:	< 0.1 mmHg @ 68°F	VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	1.07	SOLUBILITIES	Water: 100%
PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	Not determined

10. Stability and Reactivity

REACTIVITY: Normally unreactive

CHEMICAL STABILITY: Stable

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.



**PRESTONE® DexCool 50/50 Prediluted
Extended Life ANTIFREEZE/COOLANT**

Date Prepared: 09/17/2019

CONDITIONS TO AVOID: None known

INCOMPATIBLE MATERIALS: Avoid strong bases at high temperatures, strong acids, strong oxidizing agents, and materials reactive with hydroxyl compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:**ACUTE HAZARDS:**

INHALATION: May cause irritation of the nose and throat with headache, particularly from mists. High vapor concentrations caused, for example, by heating the material in an enclosed and poorly ventilated workplace, may produce nausea, vomiting, headache, dizziness and irregular eye movements.

SKIN CONTACT: No evidence of adverse effects from available information.

EYE CONTACT: Liquid, vapors or mist may cause discomfort in the eye with persistent conjunctivitis, seen as slight excess redness or conjunctiva. Serious corneal injury is not anticipated.

INGESTION: May cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects, including irregular eye movements, convulsions and coma. Cardiac failure and pulmonary edema may develop. Severe kidney damage which may be fatal may follow the swallowing of ethylene glycol. A few reports have been published describing the development of weakness of the facial muscles, diminishing hearing, and difficulty with swallowing, during the late stages of severe poisoning.

CHRONIC EFFECTS: Prolonged or repeated inhalation exposure may produce signs of central nervous system involvement, particularly dizziness and jerking eye movements. Prolonged or repeated skin contact may cause skin sensitization and an associated dermatitis in some individuals. Ethylene glycol has been found to cause birth defects in laboratory animals. The significance of this finding to humans has not been determined. 2-Ethyl Hexanoic Acid, Sodium Salt is suspected of causing developmental effects based on animal data.

CARCINOGENICITY LISTING: None of the components of these products is listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

ACUTE TOXICITY VALUES:

Ethylene Glycol: LD50 Oral Rat: 4700 mg/kg
 LD50 Skin Rabbit: 9530 mg/kg

Diethylene Glycol: LD50 Oral Rat: 12,565 mg/kg
 LD50 Skin Rabbit: 11,890 mg/kg

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH:

Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. Also, in a preliminary study to assess the effects of exposure of pregnant rats and mice to aerosols at concentrations 150, 1,000 and 2,500 mg/m³ for 6 hours a day throughout the period of organogenesis, teratogenic effects were produced at the highest concentrations, but only in mice. The conditions of these latter experiments did not allow a conclusion as to whether the developmental toxicity was mediated by inhalation of aerosol, percutaneous absorption of ethylene glycol from contaminated skin, or swallowing of ethylene glycol as a result of grooming the wetted coat. In a further study, comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity (1,000 and 2,500 mg/m³) and developmental toxicity in with minimal evidence of

**PRESTONE® DexCool 50/50 Prediluted
Extended Life ANTIFREEZE/COOLANT**

Date Prepared: 09/17/2019

teratogenicity (2,500 mg/m³). The no-effects concentration (based on maternal toxicity) was 500 mg/m³. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to the skin of pregnant mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen; there is currently no available information to suggest that ethylene glycol caused birth defects in humans. Cutaneous application of ethylene glycol is ineffective in producing developmental toxicity; exposure to high aerosol concentration is only minimally effective in producing developmental toxicity; the major route for producing developmental toxicity is perorally.

Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol causes dose-related increases in tumor incidence or a different pattern of tumors compared with untreated controls. The absence of carcinogenic potential for ethylene glycol has been supported by numerous invitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.

In a study of Wistar rats, adverse developmental results were reported at a dose of 100 mg / kg of body weight for 2-Ethyl Hexanoic Acid, Sodium Salt.

This product contains less than 0.2% tolytriazole which has demonstrated mutagenic activity in a bacterial test system. A correlation has been established between mutagenic activity and carcinogenic activity for many chemicals. Tolytriazole has not been identified as a carcinogen or probable carcinogen by NTP, IARC, ACGIH, or OSHA.

12. Ecological Information**ECOTOXICITY:**

Ethylene Glycol: LC50 Fathead Minnow <10,000 mg/L/96 hr.
EC50 Daphnia Magna 100,000 mg/L/48 hr
Bacterial (*Pseudomonas putida*): 10,000 mg/l
Protozoa (*Entosiphon sulcatum* and *Uronema parduczi*; Chatton-Lwoff): >10,000 mg/l
Algae (*Microcystis aeruginosa*): 2,000 mg/l
Green algae (*Scenedesmus quadricauda*): >10,000 mg/l
Diethylene Glycol: LC50 western mosquitofish >32,000 mg/L/96 hr

PERSISTENCE AND DEGRADABILITY:

Ethylene Glycol is readily biodegradable (97-100% in 2-12 days). Diethylene glycol is readily biodegradable (>70% in 19 days).

BIOACCUMULATIVE POTENTIAL:

Ethylene glycol: A BCF of 10, reported for ethylene glycol in fish, Golden ide (*Leuciscus idus melanotus*), after 3 days of exposure suggests the potential for bio concentration in aquatic organisms is low.

Diethylene glycol: An estimated BCF of 3 suggests the potential for bio concentration in aquatic organisms is low.

MOBILITY IN SOIL: Ethylene glycol and diethylene glycol are highly mobile in soil.

OTHER ADVERSE EFFECTS: None known

13. Disposal Considerations

Dispose of product in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not regulated (unless package contains a reportable quantity)

Note: IF A SHIPMENT OF A REPORTABLE QUANTITY (9,090 LBS/933 GAL.) IN A SINGLE PACKAGE IS INVOLVED, THE FOLLOWING INFORMATION APPLIES:

PROPER SHIPPING NAME: RQ, Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)



UN NUMBER: UN3082
PACKING GROUP: III
LABELS REQUIRED: Class 9

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

15. Regulatory Information

CERCLA SECTION 103: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Ethylene Glycol (60% maximum) of 5,000 lbs., is 8,333 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 311/312 HAZARD CLASSIFICATION: Acute health, chronic health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Ethylene Glycol	107-21-1	30-60%
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PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CALIFORNIA PROPOSITION 65: This product contains the following chemicals regulated under California Proposition 65:

Ethylene Glycol	107-21-1	30-60%	developmental
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EPA TSCA INVENTORY: All of the components of this material are listed on or exempt from the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on or exempt from the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on or exempt from the Australian Inventory of Chemical Substances. The sodium salt of 2-ethylhexanoic acid is not listed on the chemical inventory however, it is a reaction by product of the neutralization of antifreeze and therefore is exempt.

JAPAN: All of the ingredients of this product are listed on or exempt from the Japanese Existing and New Chemical Substances (MITI) List.

CHINA: All of the ingredients of this product are listed on or exempt from the Inventory of Existing Chemical Substance in China (IECSC).

KOREA: All of the ingredients of this product are listed on or exempt from the Korean Existing Chemical List (KECL).

PHILIPPINES: All of the ingredients of this product are listed on or exempt from the Philippine Inventory of Chemical and Chemical Substance (PICCS)

NEW ZEALAND: All of the components of this product are listed on or exempt from the New Zealand Inventory of Chemicals. (NZIoC)

16. Other Information



SDS 484

**PRESTONE® DexCool 50/50 Prediluted
Extended Life ANTIFREEZE/COOLANT**

Date Prepared: 09/17/2019

NFPA RATING - FIRE: 1 HEALTH: 2 INSTABILITY: 0

REVISION SUMMARY: Section 1: Part Number

SDS Date of Preparation/Revision: September 17, 2019

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

PENNZOIL® SAE 5W-30 MOTOR OIL

TECHNICAL DATA SHEET



Pennzoil® Motor Oil helps prevent dirt and contaminants from turning into performance robbing deposits to protect your engine between every oil change. It provides proven wear protection, and it's backed by our 10-year, 300,00-mile warranty*. Because at Pennzoil® we know, a cleaner engine is better protected and responsive.

*Up to 10 years or 300,000 miles, whichever comes first, if you exclusively use Pennzoil® motor oil, Pennzoil Professional® motor oil, Pennzoil® Gold Synthetic Blend motor oil, Pennzoil® High Mileage motor oil, Pennzoil® High Mileage Full Synthetic motor oil, or Pennzoil® Full Synthetic motor oil. Your engine must have fewer than 125,000 miles and have been manufactured in the past 72 months. To maintain your warranty, change your vehicle's oil and oil filter at least as often as recommended by the vehicle manufacturer. Enrollment required. Keep your receipts. Other conditions apply. See pennzoil.com/warranty to enroll and for full details and terms.

PERFORMANCE, FEATURES & BENEFITS

- Pennzoil® SAE 5W-30 Motor Oil meets the toughest industry standards.
- Protects between oil changes
- Provides proven wear protection
- Helps prevent sludge and other damaging deposits
- Compatible with engine seals and all conventional oils
- Keeps your engine clean and responsive
- Suitable for all car, SUV, light van and truck gasoline engines; under all driving conditions.

MAIN APPLICATIONS

Pennzoil® SAE 5W-30 Motor Oil is recommended for use in all vehicles requiring the use of SAE 5W-30 viscosity grade engine oils under all driving conditions.

Pennzoil® SAE 5W-30 Motor Oil can be mixed with other synthetic and mineral oils and is recommended for use in all vehicle applications under all driving conditions.

Always consult your owner's manual for the correct viscosity grade and performance recommendation required for your vehicle.

This product is harmonized with other existing products within the overall SOPUS portfolio.

SPECIFICATIONS, APPROVALS & RECOMMENDATIONS

Exceeds the requirements of the following industry and OEM specifications:

- API SP-Resource Conserving and all previous Categories
- ILSAC GF-6A and all previous ILSAC Standards
- Chrysler MS-6395
- Ford WSS-M2C961-A1

To find the right Pennzoil product for your vehicles and equipment, please consult www.pennzoil.com to look up the right motor oil recommendation using our oil selector.

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PENNZOIL® SAE 5W-30 MOTOR OIL

TYPICAL PHYSICAL CHARACTERISTICS

Properties			Method	PENNZOIL® SAE 5W-30 Motor Oil
Viscosity Grade			SAE J300	5W-30
Service Category				SP-RC
ILSAC				GF-6A
ACEA				N/A
Density		kg/m ³	ASTM D4052	860
Flash Point			ASTM D93	216
Pour Point			ASTM D97	-42
Kinematic Viscosity	@100°C	cSt	ASTM D445	10.65
Kinematic Viscosity	@40°C	cSt	ASTM D445	64.6
Viscosity Index			ASTM D2270	158
CCS Viscosity	@-30°C	cP	ASTM D5293	5 800
MRV Viscosity	@-35°C	cP	ASTM D4684	23 000

These characteristics are typical of current production. While future production will conform to Pennzoil's® specification, variations in these characteristics may occur.

HEALTH, SAFETY & ENVIRONMENT

Health and Safety

Pennzoil® SAE 5W-30 Motor Oil is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from <https://www.epc.shell.com>

Safety data sheet available on request. For Health Emergencies or Consumer Information call 1-877-276-7285.

Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

ADDITIONAL INFORMATION

Advice

Advice on applications not covered here may be obtained from your Pennzoil® Lubricants distributor representatives or local technical helpdesk.



SAFETY DATA SHEET

Revision Date 21-Mar-2019

Version 12

1. IDENTIFICATION

Product identifier

Product Name HIGH STRENGTH THREADLOCKER RED 6ML

Other means of identification

Product Code 27100

Recommended use of the chemical and restrictions on use

Recommended Use Adhesive
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Signal word

Warning

Causes skin irritation
 Causes serious eye irritation
 Suspected of causing cancer
 May cause respiratory irritation



Appearance Red

Physical state Liquid

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

Unknown acute toxicity

25.63 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
DIMETHYLBENZYL HYDROPEROXIDE	80-15-9	1 - 5
CUMENE	98-82-8	0.1 - 1

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

	present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash skin with soap and water. If skin irritation persists, call a physician. Take off contaminated clothing and wash before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None

Specific hazards arising from the chemical
None in particular.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store locked up.

Incompatible materials

Strong oxidizing agents, Peroxides, Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
CUMENE 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 245 mg/m ³ S*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection

Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Red
Odor	Mild
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	200 °C / 392 °F	

Flash point	131 °C / 268 °F
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	1.11
Water solubility	Immiscible in water
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	500 mPas @ 20°C (68°F)
Explosive properties	No information available
Oxidizing properties	No information available
Other Information	
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	1.06% (11.8 g/l)
Density	No information available
Bulk density	No information available
SADT (self-accelerating decomposition temperature)	No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Excessive heat.

Incompatible materials

Strong oxidizing agents, Peroxides, Reducing agents

Hazardous Decomposition Products

Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis.
Ingestion	Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	= 382 mg/kg (Rat)	= 0.126 mL/kg (Rabbit)	= 220 ppm (Rat) 4 h
CUMENE 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	> 3577 ppm (Rat) 6 h = 39000 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
CUMENE 98-82-8	-	Group 2B	Reasonably Anticipated	X

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen
Group 2B - Possibly Carcinogenic to Humans
 NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 6442 mg/kg
 ATEmix (dermal) 18879 mg/kg
 ATEmix (inhalation-dust/mist) 12.4 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

25.63 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
CUMENE 98-82-8	3.7

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	Toxic Ignitable
CUMENE 98-82-8	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

MDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDL Complies
 EINECS/ELINCS Complies
 ENCS Complies
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Not Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
DIMETHYLBENZYL HYDROPEROXIDE - 80-15-9	1.0
SACCHARIN - 81-07-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ
CUMENE 98-82-8	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
CUMENE - 98-82-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	X	X	X
SACCHARIN 81-07-2	X	X	X
CUMENE 98-82-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 21-Mar-2019

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 11-May-2020

Version 8

1. IDENTIFICATION

Product identifier

Product Name 133K ANTI-SEIZE LUBRICANT 8OZ

Other means of identification

Product Code 80078

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1B

Label elements

Emergency Overview

Signal word

Danger

Harmful if swallowed
 May cause cancer



Appearance Silver

Physical state Paste Liquid

Odor Petroleum

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin.

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
CALCIUM OXIDE	1305-78-8	10 - 30
GRAPHITE	7782-42-5	10 - 30
ALUMINIUM POWDER	7429-90-5	5 - 10
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT	64742-71-8	3 - 7

4. FIRST AID MEASURES

Description of first aid measures

General advice

If symptoms persist, call a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact

Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a

	physician.
Inhalation	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
Self-protection of the first aider	Use personal protective equipment as required.
<u>Most important symptoms and effects, both acute and delayed</u>	
Symptoms	See section 2 for more information.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Note to physicians	Treat symptomatically.

5. FIRE-FIGHTING MEASURES	
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<u>Suitable extinguishing media</u>	Use, Use dry chemical, Carbon dioxide (CO2), Water spray (fog), Alcohol resistant foam
<u>Unsuitable extinguishing media</u>	Water
<u>Specific hazards arising from the chemical</u>	Keep product and empty container away from heat and sources of ignition. Risk of ignition.
<u>Explosion data</u>	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
<u>Protective equipment and precautions for firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES	
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<u>Personal precautions, protective equipment and emergency procedures</u>	
Personal precautions	Avoid contact with eyes and skin. Wash thoroughly after handling. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges.
<u>Environmental precautions</u>	
Environmental precautions	See section 12 for additional ecological information. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
<u>Methods and material for containment and cleaning up</u>	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

Incompatible materials Strong oxidizing agents, Acids, Alkalis, Amines

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
CALCIUM OXIDE 1305-78-8	TWA: 2 mg/m ³	TWA: 5 mg/m ³ (vacated) TWA: 5 mg/m ³ not in effect as a result of reconsideration	IDLH: 25 mg/m ³ TWA: 2 mg/m ³
GRAPHITE 7782-42-5	TWA: 2 mg/m ³ respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m ³ dust TWA: 2.5 mg/m ³ natural respirable dust
ALUMINIUM POWDER 7429-90-5	TWA: 1 mg/m ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as

appropriate.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Paste Liquid
Appearance Silver
Odor Petroleum
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 95 °C / > 203 °F	Tag Closed Cup
Evaporation rate	< 1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg	
Vapor density	>1	Air = 1
Relative density	1.17	
Water solubility	Negligible	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
Other Information		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	0	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity
 No information available

Chemical stability
 Stable under normal conditions

Possibility of Hazardous Reactions
 None under normal processing.

Conditions to avoid
 Heat, flames and sparks.

Incompatible materials
 Strong oxidizing agents, Acids, Alkalis, Amines

Hazardous Decomposition Products
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.
Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact May cause skin irritation and/or dermatitis.
Ingestion Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CALCIUM OXIDE 1305-78-8	= 500 mg/kg (Rat)	-	-
GRAPHITE 7782-42-5	-	-	> 2000 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Serious eye damage/eye irritation Irritating to eyes.
Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT 64742-71-8	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)
 A2 - Suspected Human Carcinogen
 IARC (International Agency for Research on Cancer)
 Group 1 - Carcinogenic to Humans
 Not classifiable as a human carcinogen
 NTP (National Toxicology Program)
 Known - Known Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Target Organ Effects Central Vascular System (CVS), Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 1624 mg/kg
ATEmix (dermal) 3946 mg/kg
ATEmix (inhalation-vapor) 32255 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.10105 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
CALCIUM OXIDE 1305-78-8	Corrosive
ALUMINIUM POWDER 7429-90-5	Ignitable powder

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
ALUMINIUM POWDER - 7429-90-5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
CALCIUM OXIDE 1305-78-8	X	X	X
GRAPHITE 7782-42-5	X	X	X
ALUMINIUM POWDER 7429-90-5	X	X	X
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT 64742-71-8	-	X	-
COPPER 7440-50-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2A - Very toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
 HMIS (Hazardous Material Information System)

Revision Date 11-May-2020

Disclaimer

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However, Illinois Tool Works Inc. makes no warranty, express or implied, as to the accuracy, reliability or completeness of the information. User is responsible for evaluating whether such information or this product is fit for a particular purpose and suitable for a particular use or application. The information in this data sheet may not be valid if this product is used in combination with other products or in processes for which it was not designed. Illinois Tool Works Inc. disclaims any liability for consequential or incidental damages of any kind, including lost profits, arising from the sale or use of this product. Ensure you have the most current version of this data sheet by contacting us or reviewing our web site.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 15-May-2020

Version 7

1. IDENTIFICATION

Product identifier

Product Name ULTRA BLACK GASKET MAKER 3.35OZ

Other means of identification

Product Code 82180

Recommended use of the chemical and restrictions on use

Recommended Use Sealant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2

Label elements

Emergency Overview

Signal word

Warning

Causes serious eye irritation
 May cause an allergic skin reaction
 Suspected of causing cancer



Appearance Black

Physical state Paste Liquid

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Harmful to aquatic life with long lasting effects.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
CALCIUM CARBONATE	471-34-1	15 - 40
LIMESTONE	1317-65-3	10 - 30
2-BUTANONE OXIME	96-29-7	1 - 5
CARBON BLACK	1333-86-4	0.1 - 1

4. FIRST AID MEASURES

Description of first aid measures

General advice

If symptoms persist, call a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

	continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
Self-protection of the first aider	Use personal protective equipment as required.
<u>Most important symptoms and effects, both acute and delayed</u>	
Symptoms	May cause allergic skin reaction.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Note to physicians	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

<u>Suitable extinguishing media</u>	Use, Use dry chemical, Carbon dioxide (CO2), Water spray (fog), Alcohol resistant foam
<u>Unsuitable extinguishing media</u>	None
<u>Specific hazards arising from the chemical</u>	Keep product and empty container away from heat and sources of ignition. Risk of ignition.
<u>Explosion data</u>	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
<u>Protective equipment and precautions for firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

<u>Personal precautions, protective equipment and emergency procedures</u>	
Personal precautions	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment as required.
<u>Environmental precautions</u>	
Environmental precautions	See section 12 for additional ecological information. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
<u>Methods and material for containment and cleaning up</u>	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate

containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Protect from moisture. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

Incompatible materials Strong oxidizing agents, Acids, Water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
CALCIUM CARBONATE 471-34-1	-	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
LIMESTONE 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
CARBON BLACK 1333-86-4	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Paste Liquid
Appearance Black
Odor Mild
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	Polymerization
Flash point	> 95 °C / > 203 °F	Tag Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg @ 80°F	
Vapor density	>1	Air = 1
Relative density	1.44	
Water solubility	Not applicable	Polymerization
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
Other Information		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	3%	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity
 No information available

Chemical stability
 Stable under normal conditions

Possibility of Hazardous Reactions
 None under normal processing.

Conditions to avoid
 Excessive heat. Heat, flames and sparks.

Incompatible materials
 Strong oxidizing agents, Acids, Water

Hazardous Decomposition Products

Carbon oxides
 Nitrogen oxides (NOx)
 Formaldehyde
 May release 2-butanone oxime (ethyl methyl ketoxime) at elevated temperature

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.
Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Ingestion Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CALCIUM CARBONATE 471-34-1	= 6450 mg/kg (Rat)	-	-
2-BUTANONE OXIME 96-29-7	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4.83 mg/L (Rat) 4 h
CARBON BLACK 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
CARBON BLACK 1333-86-4	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)
 A3 - *Animal Carcinogen*
 IARC (International Agency for Research on Cancer)
 Group 2B - *Possibly Carcinogenic to Humans*
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - *Present*

Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 14639 mg/kg
 ATEmix (dermal) 27922 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.001 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
2-BUTANONE OXIME 96-29-7	0.65

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT
Ethanol Not regulated

IATA
Ethanol Not regulated

IMDG
Ethanol Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Does not comply
 ENCS Does not comply
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Complies

Legend:
 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
CARBON BLACK 1333-86-4	*Carcinogen (airborne, unbound particles of respirable size)
SILICA, QUARTZ 14808-60-7	*Carcinogen (airborne particles of respirable size only)

*The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
LIMESTONE 1317-65-3	X	X	X
ALUMINIUM POWDER 7429-90-5	X	X	X
CARBON BLACK 1333-86-4	X	X	X
SILICA, QUARTZ 14808-60-7	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 1 Instability 0
 HMIS Health hazards 2 Flammability 1 Physical hazards 0 Personal protection B

NFPA (National Fire Protection Association)
 HMIS (Hazardous Material Information System)

Revision Date 15-May-2020

Disclaimer

Illinois Tool Works Inc. believes the information contained in this data sheet is accurate as of the date compiled. However, Illinois Tool Works Inc. makes no warranty, express or implied, as to the accuracy, reliability or completeness of the information. User is responsible for evaluating whether such information or this product is fit for a particular purpose and suitable for a particular use or application. The information in this data sheet may not be valid if this product is used in combination with other products or in processes for which it was not designed. Illinois Tool Works Inc. disclaims any liability for consequential or incidental damages of any kind, including lost profits, arising from the sale or

use of this product. Ensure you have the most current version of this data sheet by contacting us or reviewing our web site.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 25-Feb-2020

Version 6

1. IDENTIFICATION

Product identifier

Product Name DIELECTRIC TUNE-UP GREASE 3 OZ

Other means of identification

Product Code 22058

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance White

Physical state Grease

Odor Mild

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Not applicable.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

Description of first aid measures

General advice Get medical advice/attention if you feel unwell.

Eye contact Wash with plenty of water.

Skin contact Wash with soap and water.

Inhalation Remove to fresh air.

Ingestion Do NOT induce vomiting.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Use dry chemical, Foam

Unsuitable extinguishing media

None

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with eyes and skin. Wash thoroughly after handling.
<u>Environmental precautions</u>	
Environmental precautions	See section 12 for additional ecological information.
<u>Methods and material for containment and cleaning up</u>	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

<u>Precautions for safe handling</u>	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
<u>Conditions for safe storage, including any incompatibilities</u>	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible materials	Strong oxidizing agents, Acids, Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Control parameters</u>	
Exposure Guidelines	
<u>Appropriate engineering controls</u>	
Engineering Controls	Eyewash stations
<u>Individual protection measures, such as personal protective equipment</u>	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
Respiratory protection	None under normal use conditions.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>9.1. Information on basic physical and chemical properties</u>		
Physical state	Grease	
Appearance	White	
Odor	Mild	
Odor threshold	No information available	
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	

Flash point	> 95 °C / > 203 °F	Tag Closed Cup
Evaporation rate	< 1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	> 1	Air = 1
Relative density	1.0	
Water solubility	Negligible	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
Other Information		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	0	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity	No information available
Chemical stability	Stable under normal conditions
Possibility of Hazardous Reactions	None under normal processing.
Conditions to avoid	Excessive heat.
Incompatible materials	Strong oxidizing agents, Acids, Reducing agents
Hazardous Decomposition Products	Carbon oxides Formaldehyde

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	
Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis.
Ingestion	Ingestion may cause irritation to mucous membranes.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 91000 mg/kg

ATEmix (dermal) 2143 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.02 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT

Proper shipping name: Not regulated

IATA

Proper shipping name: Not regulated

IMDG

Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Does not comply
 ENCS Does not comply
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
BORIC ACID 10043-35-3	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards	1	Flammability	1	Instability	0	-
<u>HMIS</u>	Health hazards	1	Flammability	1	Physical hazards	0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 25-Feb-2020

Disclaimer

Illinois Tool Works Inc. believes the information contained in this data sheet is accurate as of the date compiled. However, Illinois Tool Works Inc. makes no warranty, express or implied, as to the accuracy, reliability or completeness of the information. User is responsible for evaluating whether such information or this product is fit for a particular purpose and suitable for a particular use or application. The information in this data sheet may not be valid if this product is used in combination with other products or in processes for which it was not designed. Illinois Tool Works Inc. disclaims any liability for consequential or incidental damages of any kind, including lost profits, arising from the sale or use of this product. Ensure you have the most current version of this data sheet by contacting us or reviewing our web site.

End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 08-Feb-2019

Version 6

1. IDENTIFICATION

Product identifier

Product Name 6BR SENSOR SAFE BLUE SILICONE RTV 3 OZ

Other means of identification

Product Code 80022

Recommended use of the chemical and restrictions on use

Recommended Use Sealant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2

Label elements

Emergency Overview

Signal word

Warning

Causes serious eye irritation
 May cause an allergic skin reaction
 Suspected of causing cancer



Appearance Blue

Physical state Paste

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

Unknown acute toxicity

30.554 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
LIMESTONE	1317-65-3	10 - 30
CALCIUM CARBONATE	471-34-1	10 - 30
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	3 - 7
2-BUTANONE OXIME	96-29-7	1 - 5

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell.

Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required.
<u>Most important symptoms and effects, both acute and delayed</u>	
Symptoms	May cause allergic skin reaction.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Note to physicians	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media

None

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Flood with water to complete polymerization and scrape off floor. Sweep up and shovel into suitable containers for disposal. Clean up spill thoroughly as residue is slippery.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Protect from moisture.

Incompatible materials Strong oxidizing agents, Acids, Water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
LIMESTONE 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
CALCIUM CARBONATE 471-34-1	-	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Paste
Appearance Blue
Odor Mild
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks - Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available Not Applicable	Polymerization
Flash point	> 100 °C / > 212 °F	Tag Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg	
Vapor density	>1	Air = 1
Relative density	1.43	
Water solubility	Not applicable	Polymerization
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
<u>Other Information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	<3%, <43 g/l	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability
Stable under normal conditions

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Excessive heat.

Incompatible materials
Strong oxidizing agents, Acids, Water

Hazardous Decomposition Products
Carbon oxides
Nitrogen oxides (NOx)
Formaldehyde
May release 2-butanone oxime (ethyl methyl ketoxime) at elevated temperature

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.
Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Ingestion Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CALCIUM CARBONATE 471-34-1	= 6450 mg/kg (Rat)	-	-
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
2-BUTANONE OXIME 96-29-7	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4.83 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 13876 mg/kg
 ATEmix (dermal) 10606 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

95.074 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
2-BUTANONE OXIME 96-29-7	0.65

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.
US EPA Waste Number Not applicable

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated
IATA
Proper shipping name: Not regulated
IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Not determined
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and

Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product is not known to contain any chemicals listed as carcinogens or reproductive toxins.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
LIMESTONE 1317-65-3	X	X	X
CI PIGMENT BLUE 15, CI #74160 147-14-8	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 08-Feb-2019

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Permatex

Revision Date 09-Dec-2020

SAFETY DATA SHEET

Version 7

1. IDENTIFICATION

Product identifier

Product Name SUPER GLUE 2 GR

Other means of identification

Product Code 82190

Recommended use of the chemical and restrictions on use

Recommended Use This product is a cyanoacrylate-based adhesive
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

24-hour emergency phone number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Signal word

Warning

Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation



Appearance Clear

Physical state Liquid

Odor Irritating

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Specific treatment (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin. Very toxic to aquatic life.

Unknown acute toxicity 14.95 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
ETHYL-2-CYANOACRYLATE	7085-85-0	60 - 100

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact	IF ON SKIN: Wash with soap and water. Allow warm water to penetrate the bond and gently attempt to move bonded areas without pulling the skin away from bonded area. If skin irritation or rash occurs: Get medical advice/attention. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	Not an expected route of exposure. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
Self-protection of the first aider	Use personal protective equipment as required.
<u>Most important symptoms and effects, both acute and delayed</u>	
Symptoms	May cause allergic skin reaction.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Note to physicians	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

<u>Suitable extinguishing media</u>	Use, Use dry chemical, Carbon dioxide (CO2), Water spray (fog), Alcohol resistant foam
<u>Unsuitable extinguishing media</u>	None
<u>Specific hazards arising from the chemical</u>	Combustible material. Keep product and empty container away from heat and sources of ignition. Risk of ignition.
<u>Explosion data</u>	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
<u>Protective equipment and precautions for firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

<u>Personal precautions, protective equipment and emergency procedures</u>	
Personal precautions	Remove all sources of ignition. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Wash thoroughly after handling. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment as required.
<u>Environmental precautions</u>	
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See section 12 for additional ecological information.
<u>Methods and material for containment and cleaning up</u>	

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Flood with water to complete polymerization and scrape off floor. Sweep up and shovel into suitable containers for disposal. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling	
Advice on safe handling	Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).
Conditions for safe storage, including any incompatibilities	
Storage Conditions	Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.
Incompatible materials	Water, Alcohols, Amines, Alkalis

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters			
Exposure Guidelines			
Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ETHYL-2-CYANOACRYLATE 7085-85-0	STEL: 1 ppm TWA: 0.2 ppm	-	-

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
Appropriate engineering controls	
Engineering Controls	Showers Eyewash stations Ventilation systems
Individual protection measures, such as personal protective equipment	
Eye/face protection	Tight sealing safety goggles.
Skin and body protection	Do not use PVC, nylon or cotton. Wear protective nitrile rubber gloves.
Respiratory protection	Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.
General Hygiene Considerations	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties	
Physical state	Liquid
Appearance	Clear

Odor	Irritating	
Odor threshold	1 ppm	
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 150 °C / > 302 °F	
Flash point	80-93.4 °C / 176-200 °F	Tag Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<0.2 mm Hg	
Vapor density	No information available	
Relative density	1.06	
Water solubility	Insoluble in water	Solidifies
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	485 °C / 905 °F	
Decomposition temperature	No information available	
Kinematic viscosity	30-70	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
<u>Other Information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC content	0.05%	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	No information available
<u>Chemical stability</u>	Stable under normal conditions
<u>Possibility of Hazardous Reactions</u>	None under normal processing.
<u>Conditions to avoid</u>	Heat, flames and sparks.
<u>Incompatible materials</u>	Water, Alcohols, Amines, Alkalis
<u>Hazardous Decomposition Products</u>	Carbon oxides

11. TOXICOLOGICAL INFORMATION

<u>Information on likely routes of exposure</u>	
Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact Will bond to skin. May cause skin irritation and/or dermatitis.
Ingestion Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
ETHYL-2-CYANOACRYLATE 7085-85-0	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	< 21.1 mg/L (Rat) 1 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.
 IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen
STOT - single exposure May cause respiratory irritation.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5008 mg/kg
 ATEmix (dermal) 2003 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.95 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

14. TRANSPORT INFORMATION

DOT
 Proper shipping name Not regulated

IATA
 Proper shipping name Not regulated

IMDG
 Proper shipping name Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Complies
 ENCS Complies
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard Yes
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ETHYL-2-CYANOACRYLATE 7085-85-0	X	-	-
HYDROQUINONE 123-31-9	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability 2	Instability 1	-
<u>HMIS</u>	Health hazards 1 2	Flammability 2	Physical hazards 1	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 09-Dec-2020

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

Revision Date 24-Feb-2020

Version 5

1. IDENTIFICATION

Product identifier

Product Name PX 116DA SILICONE LUBE 10.25 OZ

Other means of identification

Product Code 80070

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
 6875 Parkland Blvd.
 Solon, Ohio 44139 USA
 Telephone: 1-87-Permatex
 (866) 732-9502

24-hour emergency phone number

Chem-Tel: 800-255-3924
 International Emergency:
 00+1+ 813-248-0585
 Contract Number: MIS0003453

E-mail address: mail@permatex.com

May Also Be Distributed by:

ITW Permatex Canada
 101-2360 Bristol Circle
 Oakville, ON Canada L6H 6M5
 Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Label elements

Emergency Overview

Signal word

Danger

May cause genetic defects
 May cause cancer
 May be fatal if swallowed and enters airways
 Highly flammable liquid and vapor



Appearance White

Physical state Liquid Flammable Aerosol

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating/ lighting/ equipment
 Use non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Do NOT induce vomiting
 In case of fire: Use CO2, dry chemical, or foam to extinguish.

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	15 - 40
BUTANE	106-97-8	10 - 30
PROPANE	74-98-6	3 - 7

4. FIRST AID MEASURES

Description of first aid measures

General advice

Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
Inhalation	Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult.
Ingestion	IF SWALLOWED: Call a physician or poison control center immediately. Do NOT induce vomiting.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Keep victim warm and quiet.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing agent suitable for type of surrounding fire, Dry chemical or CO2, Water spray, fog or regular foam, Move containers from fire area if you can do it without risk, Damaged cylinders should be handled only by specialists

Unsuitable extinguishing media

None

Specific hazards arising from the chemical

Some may burn but none ignite readily. Ruptured cylinders may rocket.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Other Information Ventilate the area.

Environmental precautions

Environmental precautions Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate.

Methods for cleaning up Do not direct water at spill or source of leak.
Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Do not expose to temperatures exceeding 50 °C/122 °F.
Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
BUTANE 106-97-8	STEL: 1000 ppm explosion hazard	(vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 1600 ppm TWA: 800 ppm TWA: 1900 mg/m ³
PROPANE 74-98-6	See Appendix F: Minimal Oxygen Content, explosion hazard	TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Liquid Flammable Aerosol
Appearance White

Odor	Mild	
Odor threshold	No information available	
Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 38 °C / > 100 °F	
Flash point	-104 °C / -155 °F	Gives a flame projection at full valve opening or flashback at any degree of valve opening
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	40 psig @ 20°C (68°F)	
Vapor density	No information available	
Relative density	0.94	
Water solubility	No information available	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
Other Information		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	20.5	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity No information available
Chemical stability Stable under normal conditions
Possibility of Hazardous Reactions None under normal processing.
Conditions to avoid Heat, flames and sparks.
Incompatible materials Strong oxidizing agents
Hazardous Decomposition Products Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation May cause irritation of respiratory tract.

Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact May cause skin irritation and/or dermatitis.
Ingestion Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
BUTANE 106-97-8	-	-	= 658 g/m ³ (Rat) 4 h
PROPANE 74-98-6	-	-	> 800000 ppm (Rat) 15 min

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Target Organ Effects Central nervous system.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 16683 mg/kg
 ATEmix (dermal) 6673 mg/kg
 ATEmix (inhalation-gas) 1263198 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
BUTANE 106-97-8	2.89
PROPANE 74-98-6	2.3

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.
 Contaminated packaging Do not reuse container.
 US EPA Waste Number D001

14. TRANSPORT INFORMATION

DOT
 UN/ID No 1950
 Proper shipping name: Aerosols, Limited Quantity (LQ)
 Hazard Class 2.1
 Emergency Response Guide Number 126

IATA
 UN/ID No ID 8000
 Proper shipping name: Consumer commodity
 Hazard Class 9
 ERG Code 9L

IMDG
 UN/ID No 1950
 Proper shipping name: Aerosols, Limited Quantity (LQ)
 Hazard Class 2.1
 EmS-No F-D, S-U

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDL Complies
 EINECS/ELINCS Not determined
 ENCS Complies
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No

Fire hazard Yes
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
BUTANE 106-97-8	X	X	X
PROPANE 74-98-6	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

B2 - Flammable liquid

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 3 Instability 0
HMIS Health hazards 2 Flammability 3 Physical hazards 0 Personal protection B

NFPA (National Fire Protection Association)
 HMIS (Hazardous Material Information System)

Revision Date 24-Feb-2020

Disclaimer

Illinois Tool Works Inc. believes the information contained in this data sheet is accurate as of the date compiled. However, Illinois Tool Works Inc. makes no warranty, express or implied, as to the accuracy, reliability or completeness of the information. User is responsible for evaluating whether such information or this product is fit for a particular purpose and suitable for a particular use or application. The information in this data sheet may not be valid if this product is used in combination with other products or in processes for which it was not designed. Illinois Tool Works Inc. disclaims any liability for consequential or incidental damages of any kind, including lost profits, arising from the sale or use of this product. Ensure you have the most current version of this data sheet by contacting us or reviewing our web site.

End of Safety Data Sheet

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: (9991-L) LIQUID ROOF
PRODUCT CODE: F9991

HMIS CODES: H F R P
2 2 0 G

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: Pro Guard Coatings	
ADDRESS: One Industrial Way, PA 19608	
EMERGENCY PHONE: 1-800-424-9300	INFORMATION PHONE: 717-336-7900
DATE REVISED : 02-12-04	NAME OF PREPARER : Sue Nielsen

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	OCCUPATIONAL EXPOSURE LIMITS				VAPOR PRESSURE		WEIGHT
	CAS NUMBER	OSHA PEL	ACGIH TLV	OTHER	mm Hg @ TEMP		PERCENT
* HIGH FLASH NAPHTHA 100/VOLATILE SOLVENT	64742-95-6		100 ppm		10.0	77F	10
STYRENE-ETHYLENE/BUTYLENE-STYRENE BLOCK COPOLYMER	MIXTURE				N/A		
TITANIUM DIOXIDE	13463-67-7				N/A		
TALC	14807-96-6				N/A		
BARIUM SULFATE	7727-43-7				N/A		
NON-FERROUS METAL OXIDE	1314-13-2				N/A		
ALIPHATIC HYDROCARBON	64742-47-8	100 ppm	100 ppm		N/A		
Technical white mineral oil	8042-47-5	5mg/m3	5mg/m3	10mg/m3	0.1	70F	
HYDROCARBON POLYMER	N/A				N/A		
DIOCTYL SEBACATE	122-62-3				5.0	256F	
t-butyl peroxybenzoate	614-45-9				7.6	75F	
METALLIC SOAPS					2.5	100F	

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 Title III and of 40 CFR 372

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BULLING RANGE:	300 to 450 deg F	SPECIFIC GRAVITY (H20=1):	1.0
VAPOR DENSITY:	HEAVIER THAN AIR ETHER	EVAPORATION RATE:	SLOWER THAN
COATING V.O.C. :	2.47 LB/GL (296 G/L)		
MATERIAL V.O.C.:	2.46, LB/GL (295 G/L)		
SOLUBILITY IN WATER:	Insoluble		
APPEARANCE AND ODOR:	White viscous liquid with petroleum odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 115 F	METHOD USED: Setaflash
FLAMMABLE LIMITS IN AIR BY VOLUME-	LOWER: 0.9% UPPER: 7.0%
EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL	
SPECIAL FIREFIGHTING PROCEDURES	
Full protective equipment. Water spray may be ineffective, but may be used to cool closed containers.	
UNUSUAL FIRE AND EXPLOSION HAZARDS	
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame.	Closed containers may explode when exposed to extreme heat. Decomposition products may cause health hazard.

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
Strong oxidizers

INCOMPATIBILITY (MATERIALS TO AVOID)
Strong oxidizers

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Carbon monoxide and asphyxiants

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
N/A

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

High concentrations or prolonged exposure to lower concentrations may be slightly irritating to mucous membranes, See SKIN ABSORPTION SIGNS AND SYMPTOMS OF EXPOSURE.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Skin: Prolonged and repeated liquid contact can cause defatting and drying of the skin which may result in dermatitis. Eyes: Short-term liquid or vapor contact may result in slight eye irritation. Prolonged contact may be more irritating.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Contains organic solvent. Chronic exposure may cause damage to the central nervous system, respiratory system, lung, eye, skin, liver, gastrointestinal tract, spleen, kidneys and blood. Vapor harmful and irritating. Avoid breathing fumes.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Liquid ingestion may result in vomiting. Aspiration 'breathing' of vomitus into the lungs must be avoided as even small quantities in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Acute toxicity: Overexposure can lead to central nervous system depression producing such effects as headache, dizziness, nausea, and loss of consciousness.

CARCINOGENICITY: NTP? NO
N/A,

IARC MONOGRAPHS? NO

OSHA REGULATED? NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

N/A

EMERGENCY AND FIRST AID PROCEDURES

Eye: Flush with water for 15 minutes while holding eye-lids open. Get medical attention immediately. Skin: Wash with soap and water. Remove contaminated clothing and shoes. Do not reuse until cleaned. Get medical attn. Inhalation: Remove victim to fresh air, provide oxygen if breathing is difficult. Give art. resp. if not breathing. Ingestion: Do not induce vomiting! If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get medical attention immediately.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Prevent ignition; stop leak; ventilate area; contain spill; absorb on inert material.

WASTE DISPOSAL METHOD

Follow Federal, State, and Local regulations, RCRA Hazardous waste. Incinerate. Contract to authorized disposal service.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, or flame. Keep containers tightly closed. Keep in well ventilated space.

OTHER PRECAUTIONS

This product is designated as a hazardous substance under the Clean Water Act. Keep out of surface waters or sewers entering or leading to surface waters.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Use a NIOSH respirator to prevent overexposure. Use either an Atmosphere-supplying Respirator or an Air-purifying respirator for organic vapors.

VENTILATION

Use explosion-proof ventilation as required to control vapor concentrations.

PROTECTIVE GLOVES

Impervious gloves

EYE PROTECTION

Chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Protective clothing as required to prevent skin contact.

WORK/HYGIENIC PRACTICES

Do not weld, heat or drill near containers. Even empty containers may contain explosive vapors.

===== SECTION IX DISCLAIMER =====

DISCLAIMER

The facts stated are based upon information believed to be accurate. No guarantee is made of data accuracy. We do not assume responsibility or liability for use of this product, since we have no control over the methods or conditions of its use. Compliance with all applicable federal, state and local regulations is the responsibility of the user.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: (9991-L) LIQUID ROOF
PRODUCT CODE: F9991

HMIS CODES: H F R P
2 2 0 G

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: Pro Guard Coatings		
ADDRESS: One Industrial Way, PA 19608		
EMERGENCY PHONE: 1-800-424-9300		INFORMATION PHONE: 717-336-7900
DATE REVISED : 02-12-04		NAME OF PREPARER : Sue Nielsen

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE		WEIGHT PERCENT
		OSHA PEL	ACGIR TLV	OTHER	mm Hg @ TEMP		
* HIGH FLASH NAPHTHA 100/VOLATILE SOLVENT	64742-95-6		100 ppm		10.0	77F	10
STYRENE-ETHYLENE/BUTYLENE-STYRENE BLOCK COPOLYMER	MIXTURE				N/A		
TITANIUM DIOXIDE	13463-67-7				N/A		
TALC	14807-96-6				N/A		
BARIUM SULFATE	7727-43-7				N/A		
NON-FERROUS METAL OXIDE	1314-13-2				N/A		
ALIPHATIC HYDROCARBON	64742-47-8	100 ppm	100 ppm		N/A		
Technical white mineral oil	8042-47-5	5mg/m3	5mg/m3	10mg/m3	0.1	70F	
HYDROCARBON POLYMER	N/A				N/A		
DIOCTYL SEBACATE	122-62-3				5.0	256F	
t-butyl peroxybenzoate	614-45-9				7.6	75F	
METALLIC SOAPS					2.5	100F	

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 Title III and of 40 CFR 372

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE:	300 to 450 deg F	SPECIFIC GRAVITY (H2O=1):	1.0
VAPOR DENSITY:	HEAVIER THAN AIR ETHER	EVAPORATION RATE:	SLOWER THAN
COATING V.O.C. :	2.47 LB/GL (296 G/L)		
MATERIAL V.O.C.:	2.46, LB/GL (295 G/L)		
SOLUBILITY IN WATER:	Insoluble		
APPEARANCE AND ODOR:	White viscous liquid with petroleum odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 115 F	METHOD USED: Setflash
FLAMMABLE LIMITS IN AIR BY VOLUME-	LOWER: 0.9% UPPER: 7.0%
EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL	
SPECIAL FIREFIGHTING PROCEDURES	
Full protective equipment. Water spray may be ineffective, but may be used to cool closed containers.	
UNUSUAL FIRE AND EXPLOSION HAZARDS	
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Decomposition products may cause health hazard.	

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
Strong oxidizers

INCOMPATIBILITY (MATERIALS TO AVOID)
Strong oxidizers

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Carbon monoxide and asphyxiants

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
N/A

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

High concentrations or prolonged exposure to lower concentrations may be slightly irritating to mucous membranes, See SKIN ABSORPTION SIGNS AND SYMPTOMS OF EXPOSURE.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Skin: Prolonged and repeated liquid contact can cause defatting and drying of the skin which may result in dermatitis.
Eyes: Short-term liquid or vapor contact may result in slight eye irritation. Prolonged contact may be more irritating.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Contains organic solvent. Chronic exposure may cause damage to the central nervous system, respiratory system, lung, eye, skin, liver, gastrointestinal tract, spleen, kidneys and blood. Vapor harmful and irritating. Avoid breathing fumes.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Liquid ingestion may result in vomiting. Aspiration 'breathing' of vomitus into the lungs must be avoided as even small quantities in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Acute toxicity: Overexposure can lead to central nervous system depression producing such effects as headache, dizziness nausea, and loss of consciousness.

CARCINOGENICITY: NTP? NO
N/A ,

IARC MONOGRAPHS? NO

OSHA REGULATED? NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
N/A

EMERGENCY AND FIRST AID PROCEDURES

Eye: Flush with water for 15 minutes while holding eye-lids open. Get medical attention immediately. Skin: Wash with soap and water. Remove contaminated clothing and shoes. Do not reuse until cleaned. Get medical attn.
Inhalation: Remove victim to fresh air, provide oxygen if breathing is difficult. Give art. resp. if not breathing.
Ingestion: Do not induce vomiting! If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get medical attention immediately.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Prevent ignition; stop leak; ventilate area; contain spill; absorb on inert material.

WASTE DISPOSAL METHOD

Follow Federal, State, and Local regulations, RCRA Hazardous waste. Incinerate. Contract to authorized disposal service.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, or flame. Keep containers tightly closed. Keep in well ventilated space.

OTHER PRECAUTIONS

This product is designated as a hazardous substance under the Clean Water Act. Keep out of surface waters or sewers entering or leading to surface waters.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Use a NIOSH respirator to prevent overexposure. Use either an Atmosphere-supplying Respirator or an Air-purifying respirator for organic vapors.

VENTILATION

Use explosion-proof ventilation as required to control vapor concentrations.

PROTECTIVE GLOVES

Impervious gloves

EYE PROTECTION

Chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Protective clothing as required to prevent skin contact.

WORK/HYGIENIC PRACTICES

Do not weld, heat or drill near containers. Even empty containers may contain explosive vapors.

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EMERGENCY PHONE: 1-800-424-9300	INFORMATION PHONE: 717-336-7900	
DATE REVISED : 02-12-04	NAME OF PREPARER : Sue Nielsen	

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HAZARDOUS COMPONENTS	OCCUPATIONAL EXPOSURE LIMITS				VAPOR PRESSURE		WEIGHT
	CAS NUMBER	OSHA PEL	ACGIH TLV	OTHER	mm Hg @ TEMP	PERCENT	
* HIGH FLASH NAPHTHA 100/VOLATILE SOLVENT	64742-95-6		100 ppm		10.0 77F	10	
STYRENE-ETHYLENE/BUTYLENE-STYRENE BLOCK COPOLYMER	MIXTURE				N/A		
TITANIUM DIOXIDE	13463-67-7				N/A		
TALC	14807-96-6				N/A		
BARIUM SULFATE	7727-43-7				N/A		
NON-FERROUS METAL OXIDE	1314-13-2				N/A		
ALIPHATIC HYDROCARBON	64742-47-8	100 ppm	100 ppm		N/A		
Technical white mineral oil	8042-47-5	5mg/m3	5mg/m3	10mg/m3	0.1 70F		
HYDROCARBON POLYMER	N/A				N/A		
DIOCTYL SEBACATE	122-62-3				5.0 256F		
t-butyl peroxybenzoate	614-45-9				7.6 75F		
METALLIC SOAPS					2.5 100F		

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BOILING RANGE:	300 to 450 deg F	SPECIFIC GRAVITY (H2O=1):	1.0
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COATING V.O.C. :	2.47 LB/GL (296 G/L)		
MATERIAL V.O.C.:	2.46, LB/GL (295 G/L)		
SOLUBILITY IN WATER:	Insoluble		
APPEARANCE AND ODOR:	White viscous liquid with petroleum odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 115 F	METHOD USED: Setaflash
FLAMMABLE LIMITS IN AIR BY VOLUME-	LOWER: 0.9% UPPER: 7.0%
EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL	
SPECIAL FIREFIGHTING PROCEDURES	
Full protective equipment. Water spray may be ineffective, but may be used to cool closed containers.	
UNUSUAL FIRE AND EXPLOSION HAZARDS	
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Decomposition products may cause health hazard.	

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
 Strong oxidizers

INCOMPATIBILITY (MATERIALS TO AVOID)
 Strong oxidizers

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
 Carbon monoxide and asphyxiants

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
 N/A

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

High concentrations or prolonged exposure to lower concentrations may be slightly irritating to mucous membranes, See SKIN ABSORPTION SIGNS AND SYMPTOMS OF EXPOSURE.

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HEALTH HAZARDS (ACUTE AND CHRONIC)

Acute toxicity: Overexposure can lead to central nervous system depression producing such effects as headache, dizziness, nausea, and loss of consciousness.

CARCINOGENICITY: NTP? NO
 N/A,

IARC MONOGRAPHS? NO

OSHA REGULATED? NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
 N/A

EMERGENCY AND FIRST AID PROCEDURES

Eye: Flush with water for 15 minutes while holding eye-lids open. Get medical attention immediately. Skin: Wash with soap and water. Remove contaminated clothing and shoes. Do not reuse until cleaned. Get medical attn. Inhalation: Remove victim to fresh air, provide oxygen if breathing is difficult. Give art. resp. if not breathing. Ingestion: Do not induce vomiting! If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get medical attention immediately.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Prevent ignition; stop leak; ventilate area; contain spill; absorb on inert material.

WASTE DISPOSAL METHOD

Follow Federal, State, and Local regulations, RCRA Hazardous waste. Incinerate. Contract to authorized disposal service.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, or flame. Keep containers tightly closed. Keep in well ventilated space.

OTHER PRECAUTIONS

This product is designated as a hazardous substance under the Clean Water Act. Keep out of surface waters or sewers entering or leading to surface waters.

===== SECTION VIII - CONTROL MEASURES =====

ESPIRATORY PROTECTION

Use a NIOSH respirator to prevent overexposure. Use either an Atmosphere-supplying Respirator or an Air-purifying respirator for organic vapors.

VENTILATION

Use explosion-proof ventilation as required to control vapor concentrations.

PROTECTIVE GLOVES

Impervious gloves

EYE PROTECTION

Chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Protective clothing as required to prevent skin contact.

WORK/HYGIENIC PRACTICES

Do not weld, heat or drill near containers. Even empty containers may contain explosive vapors.

===== SECTION IX DISCLAIMER =====

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Material Safety Data Sheet

May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072



IDENTITY (As Used on Label and List)
PC Metal

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name <u>Protective Coating Co.</u>	Emergency Telephone Number <u>610-432-3543</u>
Address (Number, Street, City, State, and ZIP Code) <u>221 S. Third St.</u>	Telephone Number for Information <u>610-432-3543</u>
<u>Allentown, PA 18102</u>	Date Prepared <u>9-26-95</u>
	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
<u>Glycidyl ethers of bisphenol A resins</u> CAS# <u>25068-38-6</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>Tri (Dimethylamino Methyl) Pnenol</u> CAS# <u>90-72-2</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>Sodium Calcium Magnesium Silicate</u> CAS# <u>65997-17-3</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>Magnesium Silicate Hydrate</u> CAS# <u>14807-96-6</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>Polyether Polymercaptan</u> CAS# <u>Trade Secret</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>crystalline Silica</u> CAS# <u>14808-60-7</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	
<u>Iron</u> CAS# <u>7439-89-6</u>	<u>N.E.</u>	<u>N.E.</u>	<u>N.E.</u>	

Section III — Physical/Chemical Characteristics

N.E. = Not Established

Boiling Point <u>N/A</u>	Specific Gravity (H ₂ O = 1) <u>18.15</u>
Vapor Pressure (mm Hg.) <u>N/A</u>	Melting Point <u>N/A</u>
Vapor Density (AIR = 1) <u>N/A</u>	Evaporation Rate (Butyl Acetate ± 1) <u>N/A</u>
Solubility in Water <u>Insoluble</u>	
Appearance and Odor <u>Putty</u>	

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) <u>None</u>	Flammable Limits <u>Not established</u>	LEL <u>None</u>	UEL <u>None</u>
Extinguishing Media <u>Foam, CO2, Dry Chemicals.</u>			
Special Fire Fighting Procedures <u>Use Self-contained breathing apparatus.</u>			
Additional Fire and Explosion Hazards <u>None KNOWN.</u>			

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Excessive heat over long periods of time.

Incompatibility (Materials to Avoid)

Strong oxidizers, acids, and bases.

Hazardous Decomposition or Byproducts

Carbon Monoxide, Aldehydes, Acids, Oxides of Sulfur and Nitrogen.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Strong acids of bases.

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
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Health Hazards (Acute and Chronic)

Moderate skin irritation or sensitization possible. Possible redness of skin rash, itching, allergy, eczema skin conditions.

Carcinogenicity:	NTP? (None)	IARC Monographs? (None)	OSHA Regulated? (Not Regulated)
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Signs and Symptoms of Exposure

Possible irritation, rash, or asthmatic type response in sensitized persons with frequent and prolonged contact with skin.

Medical Conditions

Generally Aggravated by Exposure Skin and eye conditions.

Emergency and First Aid Procedures

Wash with soap and water, remove contaminated clothing and launder before re-use. Flush eyes with water for 15 minutes - call physician.

Section VII — Precautions for Safe Handling and Use**Steps to Be Taken in Case Material is Released or Spilled**

Pick-up with gloves or shovel.

Waste Disposal Method

Dispose in accordance with local, state, and federal regulations.

Precautions to Be Taken in Handling and Storing

Avoid contact with skin and eyes. Store in cool area.

Other Precautions

None.

Section VIII — Control Measures

Respiratory Protection (Specify Type) Use approved NIOSH dust mask when sanding or sawing.

Nuisance dust may be present when sanding or sawing material.

Ventilation	Local Exhaust	Good general ventilation is sufficient for most conditions	Special	None needed.
	Mechanical (General)	Not needed.	Other	N/A

Protective Gloves

Rubber gloves

Eye Protection

Wear protective glasses.

Other Protective Clothing or Equipment

None needed.

Hygienic Practices

Keep work area, clothing and skin clean and free of uncured epoxy.

The above information is given in good faith, but no warranty expressed or implied is made.

*Estimate
 N/A-Not Applicable
 N/R-Not Restricted
 N/E-Not Established

MATERIAL SAFETY DATA SHEET

NOTE: BLANK SPACES ARE NOT PERMITTED. IF ANY ITEM IS NOT APPLICABLE, THE SPACE MUST BE MARKED TO INDICATE THAT.

IDENTITY (As shown on Label or package) VLP excludes 1 oz. (F-631)		PART NO. IF APPLICABLE			
SECTION I					
MANUFACTURER'S NAME Plasti Dip International Inc.		EMERGENCY PHONE No. 1-800-424-9300			
ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE) 3920 Pheasant Ridge Drive		REVISION # 0002			
Blaine, MN 55449		MANUFACTURER'S PHONE No. FOR INFORMATION 1-763-785-2156			
		DATE MSDS WAS PREPARED October 7, 2003			
SECTION II - HAZARDOUS INGREDIENTS INFORMATION. All Health Hazards which comprise 1% or greater of the composition and all carcinogens if 0.1% of the composition or greater.					
HAZARDOUS COMPONENTS CHEMICAL and IDENTITY AND COMMON NAME (S)	% Wt. (OPTIONAL)	CAS NO.	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMEND
Tetrahydrofuran	60.3	109-99-9	200 ppm	200 ppm	None
Methyl Ethyl Ketone	18.9	78-93-3	200 ppm	200 ppm	None
Acetic Acid Ethenyl Ester, Polymer with Chloroethene	8.5	9003-22-9	N/E	N/E	None
Ethene, chloro-, homopolymer	5.5	9002-86-2	N/E	N/E	None
Cyclohexanone	2.4	108-94-1	50 ppm	25 ppm	None
SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS					
BOILING POINT 151 - 175°F	Specific Gravity (H2O = 1) 0.90 - 0.92		APPROXIMATE WEIGHT PER GALLON (LBS) 7.65		
VAPOR PRESSURE 143 mmHg @ 20°C	VAPOR DENSITY (AIR = 1) Heavier than air		EVAPORATION RATE (BUTYL ACETATE = 1) >1.0		
SOLUBILITY IN WATER soluble	% VOLATILE 81.6	VOC LBS./GAL 6.2	OTHER (IF ANY)		
PEARANCE AND ODOR Clear liquid, strong solvent odor					
SECTION IV - FIRE AND EXPLOSION HAZARD DATA					
FLASH POINT (METHOD USED) 6.0°F TCC		FLAMMABLE LIMITS 1.3 - 11.8		LEL 1.3	UEL 11.8
EXTINGUISHING MEDIA Carbon Dioxide, Dry Chemical, or Foam					
SPECIAL FIRE FIGHTING PROCEDURES Self contained breathing apparatus with a full face piece, operated in pressure demand or other positive pressure mode.					
UNUSUAL FIRE AND EXPLOSION HAZARDS This material is flammable and may be ignited by heat, sparks, flame or static electricity.					
HAZARDOUS PRODUCTS FORMED BY FIRE OR THERMAL DECOMPOSITION Carbon dioxide and/or carbon monoxide. Hydrogen chloride and organic hydrocarbons.					
EXPLOSIVE LIMITS (% BY VOLUME IN AIR) 1.3 - 11.8					
SECTION V - OPTIONAL HAZARD RATINGS IDENTIFICATION					
HAZARD RATING 4-EXTREME 3-HIGH 2-MODERATE 1-SLIGHT 0-INSIGNIFICANT **SEE SECTION IV		National Fire Protection Association (NFPA) FIRE <u>3</u> REACTIVITY <u>0</u> HEALTH <u>2</u> SPECIAL HAZARDS <u>None</u>			

This is the "front" when printed in duplex. Page 1 of 2 pages if not duplex.

SECTION VI - REACTIVITY AND STABILITY DATA			
STABILITY	UNSTABLE	STABLE X	
INCOMPATIBILITY (Materials to Avoid) Strong acids, bases, oxidizing agents, selected amines with alkali metals and halogens.			
HAZARDOUS DECOMPOSITION OR BY PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR WILL NOT OCCUR X		CONDITIONS TO AVOID May be ignited by heat, sparks, flame or static electricity
SECTION VII - HEALTH HAZARD DATA			
ROUTES OF ENTRY	INHALATION? YES	SKIN? YES	INGESTION? YES EYES? YES
HEALTH HAZARDS	ACUTE X	CHRONIC X	
CARCINOGENICITY: No			
SIGNS AND SYMPTOMS OF EXPOSURE	Headache, Dizziness, Drowsiness, Fatigue, Irregular Heartbeat, Skin and Eye Irritation.		
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE			
EMERGENCY AND FIRST AID PROCEDURES	Ingestion: Contact Physician or Poison Control Immediately. Inhalation: Remove to fresh air. Administer Oxygen or Artificial Respiration if Necessary. Eye Contact: Flush with large amounts of water. If irritation persists, contact Physician. Skin: Wash with soap and water.		
SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Wipe up with floor absorbent. Transfer to hood. Prevent run-off to sewers. Eliminate all sources of ignition. Ventilate to maintain exposure below P.E.L.'s. Use sand or other material to dam or contain Spills. If large spill, notify appropriate state and local agencies.		
WASTE DISPOSAL METHODS	Dispose of product in accordance with local, county, state and federal regulations.		
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	Avoid eye contact with eyes. Keep container closed. Use with adequate ventilation. Keep away from sparks, flame and heat Sources and store in a cool area. Avoid inhalation of vapors and personal contact with liquid product. Use good personal hygiene practices.		
OTHER PRECAUTIONS	Keep Container Closed When Not In Use. Containers should be disposed of in an environmentally safe manner in accordance with Governmental Regulations.		
SECTION IX - CONTROL MEASURES			
RESPIRATORY PROTECTION (SPECIFY TYPE)	Depending on the airborne concentration, use a Respirator or gas mask with appropriate NIOSH approved cartridge and cannister, or supplied air equipment.	PROTECTIVE GLOVES Impervious	
VENTILATION	LOCAL EXHAUST Supplemental (if needed)	SPECIAL None	OTHER None
EYE PROTECTION	Chemical splash goggles or approved eye protection.	OTHER PROTECTIVE CLOTHING OR EQUIPMENT Impervious Clothing/Boots as needed.	
WORK HYGIENIC PRACTICES	Wash thoroughly after handling.		
SECTION X - TRANSPORTATION INFORMATION			
D.O.T. PROPER SHIPPING NAME	Coating Solution (UN 1139)	D.O.T. HAZARD CLASS	3, PG II
IATA PROPER SHIPPING NAME	Coating Solution (UN 1139)	IATA HAZARD CLASS	3, PG II
DOT EXCEPTION See DOT 49CFR 172.102, New Special Provision 149 AND DOT 49CFR 171.8 FOR CONSUMER COMMODITY, ORM-D			
SECTION XI - 313 SUPPLIER NOTIFICATION			
THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT -TO-KNOW ACT OF 1986, 40 CFR 372, (see table on page 1 for CAS # and percent by weight). Methyl Ethyl Ketone			
WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.			

This is the "back" when printed in duplex. Page 2 of 2 pages if not duplex.

Prepared By: _____

THE INFORMATION PROVIDED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THE DATA OR THE RESULTS OBTAINED FROM ITS USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND THE VENDORS CONTROL AND SINCE SUBSEQUENT DATA MAY SUGGEST MODIFICATION OF THE INFORMATION, VENDOR ASSUMES NO RESPONSIBILITY FOR THE RESULTS OF ITS USE.


Material Safety Data Sheet

Rubber Roof Cleaner
Date of Preparation: 1/10/95

MSDS No. 23
Revision: 1/26/10

Section 1 - Chemical Product and Company Identification													
Product/Chemical Name: Rubber Roof Cleaner Chemical Formula: Trade Secret CAS Number: NE Other Designations: General Use: Cleaning EPDM roof material. Manufacturer: Protect All, Inc, 1910 E. Via Burton St., Anaheim, CA 92806-1215, Phone (714)635-4491, FAX (714)635-9716 (Hours: M-F, 8am-5pm), (Emergency: Chem-Tel-(800)255-3924)													
Section 2 - Composition / Information on Ingredients													
Ingredient Name				CAS Number		% vol							
Cleaning Agent				NE		24-30							
Trace Impurities:													
	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH						
Ingredient	TWA	STEL	TWA	STEL	TWA	STEL	IDLH						
Cleaning Agent	none estab.	none estab.	2 mg/m ³	none est.	none estab.	non est.	none estab.						
Section 3 - Hazards Identification													
☆☆☆☆ Emergency Overview ☆☆☆☆							<table style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">HMIS</td></tr> <tr><td style="text-align: center;">H 1</td></tr> <tr><td style="text-align: center;">F 0</td></tr> <tr><td style="text-align: center;">R 0</td></tr> <tr><td style="text-align: center;">PPE†</td></tr> <tr><td style="text-align: center;">†Sec. 8</td></tr> </table>	HMIS	H 1	F 0	R 0	PPE†	†Sec. 8
HMIS													
H 1													
F 0													
R 0													
PPE†													
†Sec. 8													
Potential Health Effects													
Primary Entry Routes: Skin, eyes and inhalation. Target Organs: NF Acute Effects Inhalation: Breathing of mist may cause nasal and respiratory irritation. Eye: Product may be extremely irritating to the eyes. Skin: Prolonged or repeated contact can cause irritation and dermatitis. Ingestion: Can cause gastrointestinal irritation. Carcinogenicity: IARC, NTP, and OSHA do not list Rubber Roof Cleaner as a carcinogen Medical Conditions Aggravated by Long-Term Exposure: NF Chronic Effects: Specific toxicology studies have not been run on this product. This hazard evaluation is based on information from the ingredients, information from similar products and professional experience.													
Section 4 - First Aid Measures													
Inhalation: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention. Eye Contact: Flush with large amounts of water, lifting upper & lower lids occasionally. Get medical attention. Skin Contact: Thoroughly wash exposed area with soap & water. Remove contaminated clothing. Launder before re-use. Ingestion: Do not induce vomiting, keep person warm & quiet, get medical attention. Aspiration of this material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. After first aid, get appropriate in-plant, paramedic, or community medical support. Note to Physicians: NF Special Precautions/Procedures: NF													

NF=Not Found NE=None Established NA=Not Applicable

Section 5 - Fire-Fighting Measures	
<p>Flash Point: Nonflammable Flash Point Method: NA Burning Rate: NF Autoignition Temperature: NF LEL: NF UEL: NF Flammability Classification: NF Extinguishing Media: Treat primary fire. Unusual Fire or Explosion Hazards: None Hazardous Combustion Products: None. Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways. Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in a pressure-demand or positive-pressure mode.</p>	<p>NFPA</p> 
Section 6 - Accidental Release Measures	
<p>Spill /Leak Procedures: Clean up spills promptly. Small Spills: Absorb liquid on paper, floor absorbent, vermiculite or other absorbent material and remove to waste storage containers. Large Spills Containment: For large spills, stop spill at source, dike far ahead of liquid spill to prevent spreading. Do not release into sewers or waterways. Cleanup: Area will be slippery-use caution. People not wearing protective equipment should be excluded from the area until the clean-up has been completed. Pump to salvage or waste disposal tank. Remaining liquid may be taken up on sand, earth or other absorbent material and shoveled into containers. Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).</p>	
Section 7 - Handling and Storage	
<p>Handling Precautions: Wet material is slippery. Proper footwear is required. Where splash can occur, use chemical goggles. Rubber gloves are recommended for prolonged or repeated contact. Wash hands before eating or smoking Storage Requirements: All hazard precautions given in this datasheet must be observed. Regulatory Requirements: Check local, state and federal requirements.</p>	
Section 8 - Exposure Controls / Personal Protection	
<p>Engineering Controls: NE Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source. Administrative Controls: NE Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. <i>Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</i> If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas. Protective Clothing/Equipment: Wearing chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact is recommended. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.</p>	

Section 9 - Physical and Chemical Properties

Physical State: Liquid	Water Solubility: Complete
Appearance and Odor: Clear, flowery scent	Other Solubilities: NE
Odor Threshold: NE	Boiling Point: 212°F
Vapor Pressure: = H ₂ O	Freezing/Melting Point: 32°F
Vapor Density (Air=1): No vapors are produced.	Viscosity: NF
Formula Weight: NF	Refractive Index: NF
Density: NE	Surface Tension: NF
Specific Gravity (H₂O=1, at 4 °C): 1.064	% Volatile: NF
pH: 13.0 – 13.5	Evaporation Rate (H₂O=1): 1.0

Section 10 - Stability and Reactivity

Stability: Rubber Roof Cleaner is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Do not mix with acids.

Conditions to Avoid: Same.

Hazardous Decomposition Products: None.

Section 11 - Toxicological Information**Toxicity Data:***

Eye Effects: Product may be extremely irritating to the eyes.	Acute Inhalation Effects: NE
Skin Effects: Product may be corrosive to unprotected skin.	Acute Oral Effects: NE
Carcinogenicity: NE	Chronic Effects: NE
	Mutagenicity: NE
	Teratogenicity: NE

*Specific toxicity studies have not been conducted on this product. This hazard evaluation is based on information from the ingredients, similar products and professional experience.

Section 12 - Ecological Information

Ecotoxicity: NE

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements: Transport in DOT-approved containers to an EPA-approved treatment, storage and disposal (TSD) facility.

Container Cleaning and Disposal: Clean thoroughly as appropriate to the specific container. Observe recommended control measures shown in this document.

Section 14 - Transport Information**DOT Transportation Data (49 CFR 172.101):**

Shipping Name: Compound, cleaning, liquid

Shipping Symbols:

Hazard Class: Not regulated by D.O.T.

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.??): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ): No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).
SARA 311/312 Codes: NF
SARA Toxic Chemical (40 CFR 372.65): No toxic chemical is present greater than 1% or 0.1% (carcinogen).
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).
OSHA Regulations:
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
OSHA Specifically Regulated Substance (29CFR 1910.????) NF
State Regulations: NF

Section 16 - Other Information

Prepared By: Protect All, Inc. www.protectall.com

Revision Notes:

- 1/26/10: Reviewed. No changes.
- 12/23/2008: Reviewed. No changes.
- 1/20/06: Adjustment to D.O.T. info.
- 7/13/2005: Reviewed. No revisions necessary.
- 11/15/2000: Converted to PDF format.
- 8/2/2000: MSDS reviewed. No changes.

Additional Hazard Rating Systems:

Disclaimer: Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this information, but Protect All, Inc., extends no warranties, makes no representations and assumes no responsibility or suitability of this information for any purchaser's use or for any consequence of its use.

Material Safety Data Sheet

Rubber Roof Treatment

Date of Preparation: 2/26/99

MSDS No. 42

Revision: 1/26/10

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Rubber Roof Treatment
Chemical Formula: Trade Secret
CAS Number: NE
Other Designations:
General Use: Treatment and protection for EPDM roof material.
Manufacturer: Protect All, Inc, 1910 E. Via Burton St., Anaheim, CA 92806-1215, Phone (714)635-4491, FAX (714)635-9716 (Hours: M-F, 8am-5pm), (Emergency: Chem-Tel-(800)255-3924)

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% vol
Polymer Waxes	NA	35-50

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Polymer Waxes	none estab.	none estab.	none estab.	none est.	none estab.	non est.	none estab.

Section 3 - Hazards Identification

☆☆☆☆ Emergency Overview ☆☆☆☆

HMIS
H 1
F 1
R 1
PPE†
<small>†Sec. 8.</small>

Potential Health Effects

Primary Entry Routes: Skin, eyes and inhalation.
Target Organs: NF
Acute Effects
Inhalation: Breathing of mist may cause nasal and respiratory irritation.
Eye: Can cause moderate irritation, redness, tearing and blurred vision.
Skin: Prolonged or repeated contact can cause moderate irritation and dermatitis.
Ingestion: Can cause gastrointestinal irritation.
Carcinogenicity: IARC, NTP, and OSHA do not list Rubber Roof Treatment as a carcinogen
Medical Conditions Aggravated by Long-Term Exposure: NF
Chronic Effects: Specific toxicology studies have not been run on this product. This hazard evaluation is based on information from the ingredients, information from similar products and professional experience.

Section 4 - First Aid Measures

Inhalation: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.
Eye Contact: Flush with large amounts of water, lifting upper & lower lids occasionally. Get medical attention.
Skin Contact: Thoroughly wash exposed area with soap & water. Remove contaminated clothing. Launder before re-use.
Ingestion: Get medical attention
After first aid, get appropriate in-plant, paramedic, or community medical support.
Note to Physicians: NF
Special Precautions/Procedures: NF

Section 5 - Fire-Fighting Measures

Flash Point: Nonflammable
Flash Point Method: PMCC
Burning Rate: NF
Autoignition Temperature: NF
LEL: NF



NF=Not Found NE=None Established NA=Not Applicable

<p>UEL: NF Flammability Classification: NF Extinguishing Media: Treat primary fire. Unusual Fire or Explosion Hazards: None Hazardous Combustion Products: None. Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways. Fire-Fighting Equipment: NA</p>		
Section 6 - Accidental Release Measures		
<p>Spill /Leak Procedures: Clean up spills promptly. Surfaces can be slippery. Spilled material will dry hard and be difficult to remove. Prior to hardening, material is water soluble. Small Spills: Absorb liquid on paper, floor absorbent, vermiculite or other absorbent material and remove to waste storage containers. Large Spills Containment: For large spills, stop spill at source, dike far ahead of liquid spill to prevent spreading. Do not release into sewers or waterways. Cleanup: People not wearing protective equipment should be excluded from the area until the clean-up has been completed. Pump to salvage or waste disposal tank. Remaining liquid may be taken up on sand, earth or other absorbent material and shoveled into containers. Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).</p>		
Section 7 - Handling and Storage		
<p>Handling Precautions: Wet material is slippery. Proper footwear is required. Rubber gloves are recommended for prolonged or repeated contact. Wash hands before eating or smoking. Storage Requirements: Keep from freezing. All hazard precautions given in this datasheet must be observed. Regulatory Requirements: Check local, state and federal requirements.</p>		
Section 8 - Exposure Controls / Personal Protection		
<p>Engineering Controls: NE Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source. Administrative Controls: NE Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. <i>Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.</i> If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas. Protective Clothing/Equipment: Wearing chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact is recommended. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.</p>		

Section 9 - Physical and Chemical Properties		
Physical State: Liquid Appearance and Odor: White, opaque Odor Threshold: NE Vapor Pressure: 17.2 (Water) Vapor Density (Air=1): No vapors are produced. Formula Weight: NF Density: NE Specific Gravity (H₂O=1, at 4 °C): <1	Water Solubility: Negligible. Other Solubilities: NE Boiling Point: 212°F Freezing/Melting Point: Freezing 32°F Viscosity: NF Refractive Index: NF Surface Tension: NF % Volatile: NF Evaporation Rate (H₂O=1): 1 pH: NA	
Section 10 - Stability and Reactivity		
Stability: Rubber Roof Treatment is stable at room temperature in closed containers under normal storage and handling conditions. Polymerization: Hazardous polymerization cannot occur. Chemical Incompatibilities: None are known. Conditions to Avoid: Keep from freezing. Hazardous Decomposition Products: None.		
Section 11 - Toxicological Information		
Eye Effects: NE Skin Effects: NE Carcinogenicity: NE	Toxicity Data:* Acute Inhalation Effects: NE Acute Oral Effects: NE Chronic Effects: NE Mutagenicity: NE Teratogenicity: NE	
<small>*Specific toxicity studies have not been conducted on this product. This hazard evaluation is based on information from the ingredients, similar products and professional experience.</small>		
Section 12 - Ecological Information		
Ecotoxicity: NE		
Section 13 - Disposal Considerations		
Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations. Disposal Regulatory Requirements: Transport in DOT-approved containers to an EPA-approved treatment, storage and disposal (TSD) facility. Container Cleaning and Disposal: Clean thoroughly as appropriate to the specific container. Observe recommended control measures shown in this document.		
Section 14 - Transport Information		
Shipping Name: NA Shipping Symbols: NA Hazard Class: NA Special Provisions (172.102): None	DOT Transportation Data (49 CFR 172.101):	
Section 15 - Regulatory Information		
EPA Regulations: RCRA Hazardous Waste Number: Not listed (40 CFR 261.33) RCRA Hazardous Waste Classification (40 CFR 261.??): Not classified CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112		

MSDS No. 42

Rubber Roof Treatment

Revision date: 1/26/10

CERCLA Reportable Quantity (RQ): No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).
SARA 311/312 Codes: NF
SARA Toxic Chemical (40 CFR 372.65): No toxic chemical is present greater than 1% or 0.1% (carcinogen).
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).
OSHA Regulations:
Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
OSHA Specifically Regulated Substance (29CFR 1910.????) NF
State Regulations: NF

Section 16 - Other Information

Prepared By: Protect All, Inc. www.protectall.com

Revision Notes:

- 1/26/10: Reviewed. No changes.
- 12/23/2008: Reviewed. No changes.
- 7/13/2005: Reviewed. No revisions necessary.
- 11/15/2000: Converted to PDF format.
- 8/2/2000: MSDS reviewed. No changes.
- 2/1/99: New product formula replaces original formula.

Additional Hazard Rating Systems:

Disclaimer: Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this information, but Protect All, Inc., extends no warranties, makes no representations and assumes no responsibility or suitability of this information for any purchaser's use or for any consequence of its use.



TECHNICAL DATA SHEET

Revision: February 16, 2022
Supersedes: July 25, 2018
Ref. #: 477545, 584166

WINDOW, DOOR & SIDING SEALANT

QUAD[®] MAX

STRETCHES 5X*

DESCRIPTION

OSI[®] QUAD[®] MAX is the next generation of siding, window and door sealants that offers maximum durability and application performance for use in many interior or exterior conditions. QUAD MAX takes the guess work out of color matching with over 4,600 color matches to primary building material manufacturers. It has been proven to stick on wet and cold surfaces and offers long term durability against the harmful effects of sun exposure. Unlike traditional solvent sealants, QUAD MAX is resistant to bubbling and has no shrinkage. By providing superior protection against air and moisture, you've done it right the first time.

Available As:

Item #	Size	Color
1868684	9.5 fl oz (280 ml) cartridge	White (001)
Various Colors	9.5 fl oz (280 ml) cartridge	See www.ositough.com
2058483	19.2 fl oz (568 ml) sausage	White (001)

FEATURES & BENEFITS

- Flexibility: ± 50% Joint Movement Capability
- Easy to Use in All Temperatures: 0°F to 140°F Application
- 24 Hour Fast Cure for Quicker Protection*
- Available in 4,600+ Color Matches
- Paintable in 1 Hour*
- Strong Adhesion to Most Building Materials Without Primer

*Cure time is dependent on temperature, humidity and depth of sealant applied

RECOMMENDED FOR

OSI QUAD Max is designed for interior/exterior use for sealing around windows, doors and siding. It bonds to a wide variety of materials without need for a primer such as fiber cement, cedar, brick, stone, XPS/EPS, coated aluminum, steel, fiberglass, vinyl, PVC, stucco, EIFS, wood, glass, concrete, masonry, flashing tapes and most architectural coatings/finishes.

LIMITATIONS

- DO NOT TOOL or smear/feather on prefinished colored claddings (i.e. siding, trim, etc.) as this will reduce any sealants ability to withstand UV exposure and joint movement, causing premature joint failure and color fading.
- DO NOT use as a nail hole filler or in touch-up applications on prefinished exterior building materials. Follow prefinished cladding manufacturer's instructions for nail hole filling
- Not recommended for field joint/butt applications on pre-finished exterior claddings and trim materials
- Do not use on joints immersed in water or applications requiring continuous water immersion.
- Do not use on roof applications including but not limited to metal roof panels, or on log homes
- Do not use as a traffic bearing sealant
- For joints deeper than 3/8" (9.5 mm), a backing material should be used

COVERAGE

For a 9.5 fl. oz. (280 ml) cartridge:

- A 1/4" (6 mm) bead extrudes approximately 29.1 ft. (8.9 m)
- A 3/8" (9.5 mm) bead extrudes approximately 13.3 ft. (4 m)

For a 19.2 fl. oz. (568 ml) sausage:

- A 1/4" (6 mm) bead extrudes approximately 58.8 ft. (17.9 m)
- A 3/8" (9.5 mm) bead extrudes approximately 26.9 ft. (8.2 m)





TECHNICAL DATA SHEET

Revision: February 16, 2022
Supersedes: July 25, 2018
Ref. #: 477545, 584166

TECHNICAL DATA

Typical Uncured Physical Properties:			
Color:	4,600 color Matches listed on ositough.com	VOC Content:	2.48% by weight 36 g/l
Appearance:	Non-slumping paste	Shelf Life:	24 months from date of manufacture (unopened)
Base:	Silane Modified Polymer	Lot Code	YYDDD
Odor:	Alcohol	Explanation:	YY= Last two digits of year of manufacture DDD= Day of manufacture based on 365 days in a year
Specific Gravity:	1.4 – 1.5	Example:	14061 = 61 st day of 2014 = March 2, 2014
Flashpoint:	224.6° F (107° C)		

Typical Application Properties:	
Application Temperature:	Can be applied between 0°F (-18°C) and 140°F (60°C) For easier extrusion of sealant at lower temperatures, store cartridge at room temperature at least 24 hours prior to use
Skin Formation Time:	17-20 minutes* At 72°F and 70% relative humidity
Tack-free Time:	15 hours At 72°F and 70% relative humidity
Cure Time:	24-72 hours* *Cure time is dependent on temperature, humidity and depth of sealant applied
Extrusion Rate:	42 ml/min ASTM C1183 (Procedure A)
Vertical Sag:	0 inches ASTM C639

Typical Cured Performance Properties:			
Color:	Various colors	Hardness:	32 ASTM C661
Service Temperature:	-14°F (-25°C) to 158°F (70°C)	Joint Movement:	± 50% ASTM C719
Water Resistant:	Yes	Tensile Strength:	234 psi ASTM D412
Paintable:	Yes, with latex paint or primer	Maximum Elongation:	577% ASTM D412
Bubble Resistant:	Yes		
Nail-Hole Filling:	DO NOT use as a nail hole filler or in touch-up applications on prefinished colored claddings and trim. Suitable only on unfinished or primed siding materials prior to painting. Follow prefinished cladding manufacturer's instructions for nail hole filling.		
180° Peel Adhesion:	ASTM C794	Specifications:	Meets the performance requirements of:
PVC Trim:	47.6 lb./in		• ASTM C 920: Type S, Grade NS, Use NT, Class 50, M, G and A
Fiber Cement:	47.0 lb./in		• Federal Spec. TT-S-00230C, Type II
Coated (Painted) Aluminum:	51.1 lb./in		• AAMA 808.3 (Type I) Exterior Perimeter Sealing
Vinyl Siding:	54.7 lb./in		• AAMA 802.3 (Type I) & 805.2 (Group C) Back Bedding/Glazing
Mortar:	42.0 lb./in		• AAMA 713-08 Chemical Compatibility of Sealants
			• GREENGUARD Certified

DIRECTIONS

Tools Typically Required: Utility knife and caulking gun. For best application results, OSI recommends the use of a high-quality caulking gun such as the Albion® B12 Cartridge Gun.

Safety Precautions: Wear gloves and wash hands after use.

Surface Preparation: All surfaces should be clean, dry, and free of all contaminants, such as, old caulking, grease, dust, and any other material that can interfere with adhesion. Remove any ice, snow, or frost that may be present on substrates. For more information refer to cladding manufacturer's instructions for approved cleaning methods. Ensure proper drain plane design to avoid trapped water and/or moisture. The combination of trapped moisture and other variables will tend to create back pressure and cause sealant bubbling regardless of technology. While QUAD MAX is generally considered a non-priming sealant, special circumstances or substrates may require a primer. It is the user's responsibility to test substrate compatibility and the adhesion of the cured sealant on a test joint before applying to the entire project. It is also the end user's responsibility to verify acceptable color match to all substrates prior to the start of job and during the application.



TECHNICAL DATA SHEET

Revision: February 16, 2022
 Supersedes: July 25, 2018
 Ref. #: 477545, 584166

DIRECTIONS

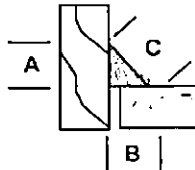
Masonry: Concrete, stone, stucco and other masonry must be cleaned where necessary by grinding or wire brushing to expose a sound surface free of contamination and laitance. Concrete must be fully cured and free of release agents.

Wood and painted wood: New and weathered wood must be clean and structurally sound. Cut back weathered surfaces and dry rot until clean, sound wood is reached. Scrape away paint to bare wood. Any coating that cannot be removed must be tested to verify adhesion of the sealant. QUAD MAX will adhere to most new and old, dry, oil-free wood.

Metal: Remove scale, rust, and residue from metal to expose a bright metal sheen by wire brushing. Remove any chemical residue, film/oils, and loose or incompatible coatings using the appropriate solvent. Any coating that cannot be removed must be tested to verify adhesion of the sealant. Remove any other coatings or finishes that could interfere with adhesion. An adhesion test is recommended for anodized aluminum or any questionable substrates.

Joint Preparation: The number of joints and the joint width should be designed for a maximum of $\pm 50\%$ joint movement from the initial joint width. The depth of the sealant joint should be one-half the width of the joint. The maximum depth is $\frac{1}{2}$ inch (13 mm) and the minimum is $\frac{1}{4}$ " (6 mm). The minimum recommended joint width is $\frac{1}{4}$ " inch and the maximum recommended joint width is $\frac{5}{8}$ " inches (15 mm). See table below.

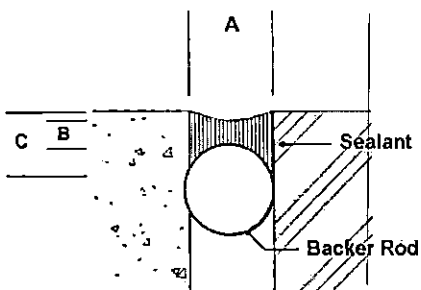
Joint Width (inches)	Sealant Depth @ Midpoint (inches)	Joint Width (mm)	Sealant Depth @ Midpoint (mm)
1/4	1/4	6	6
1/2	1/4	13	6
5/8	1/2	15	13



Fillet Joint Design

- Dimension A and B must be a minimum of $\frac{1}{4}$ "
- Dimension C must be a minimum of $\frac{3}{8}$ "

Fig. 1



Control Joint Design

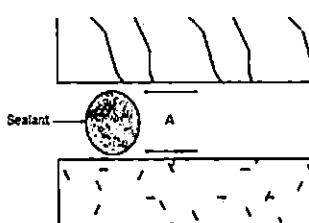
- Dimension A must be a minimum of $\frac{3}{8}$ " or maximum of $\frac{5}{8}$ "
- Dimension B must be a minimum of $\frac{1}{4}$ " depth
- Dimension C can be a maximum of $\frac{1}{2}$ "

Dynamic Joint Design

- Dimension A can be up to $\frac{5}{8}$ " wide
- Dimension B must be $\frac{3}{8}$ " in depth
- Dimension C must be a maximum depth of $\frac{1}{2}$ "

Fig. 2

NOTE: Form bead to a concave shape keeping sealant inside the joint edges. DO NOT bridge the sealant or smear beyond the joint edges otherwise it may result in premature color fading on prefinished siding and trim materials. Tooling spatula recommended. Size to joint width. Use masking tape to prevent smearing of sealant if necessary.



Bedding Bead Structure

- Dimension A must be a $\frac{3}{8}$ " rounded sealant bead
- Apply sealant to substrate.
- Minimize pressure when applying sealant to maintain a rounded bead
- Compress sealant between both substrates
- Avoid excessive substrate movement after compression. Movement of the substrates can smear sealant and breakdown the sealants capacity to maintain a seal.

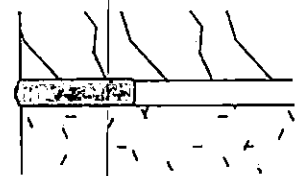


Fig. 3



TECHNICAL DATA SHEET

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Ref. #: 477545, 584166

DIRECTIONS

If the depth of the joint exceeds 3/8" (9.5 mm) the use of a backer rod such as a Closed-Cell Backer-Rod or Soft Backer-Rod is recommended. Where the joint depth does not permit the use of backer-rod, a bond breaker (polyethylene strip) must be used to prevent three-sided adhesion. To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed-Cell Backer-Rod should be approximately 1/8" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft Backer-Rod should be approximately 25% larger in diameter than the joint width. Backer-rod becomes an integral part of the joint. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer-rod.

General Preparation: The temperature of the product, the surfaces and the working area should be between 0°F (-18°C) and 140°F (60°C). For best performance, store cartridge at room temperature at least 24 hours before use. Use nozzle to fully puncture seal and cut the tip at a 30° to 45° angle with a sharp blade. Screw on plastic nozzle, insert cartridge into a high-quality caulking gun, and dispense a 3/8" bead of sealant for optimal joint protection. For more information, refer to ASTM C1193 – Standard Guide for Use of Joint Sealants.

Application Instructions:

Using a caulking gun, the sealant can be pushed or pulled when applying but positive pressure should be maintained throughout extrusion. Use steady pressure to force sealant into joint ensuring an adequate and even bond of sealant to substrate and to maintain consistency avoiding irregular bead shapes, such as, too small or too large. If the depth of the joint exceeds 3/8" (9.5 mm) the use of a backer rod is recommended. Always apply sealant in a bead form. A fillet joint is formed when two surfaces come together to form a right angle (see Fig. 1). The sealant used to join these two surfaces is triangular in shape. Masking tape can be used to ensure a clean application. **DO NOT TOOL** or smear/feather on prefinished colored claddings (i.e. siding, trim) as this will reduce any sealants ability to withstand UV exposure and joint movement, causing premature joint failure and color fading. If masking tape is used along the sides of the joint to prevent surface smearing, ensure the tape is removed immediately by pulling the tape away. Full cure may take 24-72 hours or longer depending on ambient conditions and volume of sealant used. Sealant is paintable in 1 hour*. High quality latex paint is recommended. If using oil based/alkyd paint, a latex primer should be used first. (See **OSI BEST PRACTICE GUIDE FOR PROPER INSTALLATION**).

Tips on Terminating Sealant Beads:

- **Terminating Beads at the End of a Joint:** When terminating a bead at the end of a joint, first release dispensing gun pressure to prevent run-on by pressing the release trigger, then use a twist and pinch motion at a sharp angle to sever the bead. In the event of excess string formation, guide onto existing bead. **DO NOT** pull or smear the bead onto adjacent surfaces like cladding or trim materials. **DO NOT TOOL** on prefinished cladding or trim materials.
- **Terminating Beads that will be Continued:** When terminating a bead that is to be continued (i.e. at the end of a tube), first release dispensing gun pressure to prevent run-on by pressing the release trigger. Next, pinch-off the bead by pressing the nozzle onto the joint surface to cut-off the bead. **DO NOT** smear bead onto adjacent surfaces. This action will create a slight smear inside the joint. Cover this smear with the start of the next bead.

DO NOT TOOL: Do Not Tool or smear/feather sealant on prefinished colored claddings (i.e. siding, trim) as this will reduce any sealants ability to withstand UV exposure and joint movement, causing premature joint failure and color fading. If smearing/feathering of the sealant occurs, painting over the smeared areas will be the only corrective resolution.

DO NOT USE AS NAIL HOLE FILLER: **DO NOT** use as a nail hole filler or in touch-up applications. Doing so will limit the sealant's ability to withstand UV exposure, and will result in fading or white out within six months. Follow prefinished cladding manufacturer's instructions for nail hole filling.

BUTT / FIELD JOINT APPLICATIONS: QUAD MAX is not recommended for field joint/butt joint applications on pre-finished siding and trim materials. However, QUAD MAX may be used in butt or field joint applications on unfinished or primed siding and trim materials prior to painting. Care must be taken to NOT smear the sealant beyond the joint edges. Masking tape can be used to ensure a clean application. It should be noted that joint widths of less than 1/4" and 1/4" in depth will become "maintenance" situations and need to be inspected regularly for premature failure. The reason being that joints less than 1/4" are too small to accommodate a sufficient amount of sealant in the joint to warrant long term durability. If the sealant is showing signs of degradation, remove sealant and apply fresh sealant to the joint. What is important to know is that all sealants will require maintenance and sometimes replacement, because of the effects of aging, insufficient sealant used, or because of poor joint design. When using prefinished exterior claddings (i.e. siding and trim) please refer to manufacturer's instructions for proper installation.

CONTROL / DYNAMIC JOINT APPLICATIONS: For control and dynamic joints form bead to a concave shape (see Fig. 2). Use of a spatula, sized to joint width. Care must be taken to NOT smear the sealant beyond the joint edges. Masking tape can be used to ensure a clean application and prevent smearing sealant on adjacent surfaces.

COMMERCIAL APPLICATIONS: For all commercial applications or applications not mentioned herein contact Henkel Technical support for review of intended use.

PAINTABILITY: QUAD MAX can be painted one hour after application using a high quality exterior latex paint. In situations where less humidity is present it is important to wait until a skin has formed over the sealant before painting. In joints that have a high degree of movement capability, the paint can crack, distort, or delaminate from the substrate. The reason for this is simple: the paint does not have the flexibility of a high movement/ Class 50 sealant, such as, QUAD MAX. It is the responsibility of the applicator to conduct on-site testing to determine compatibility and adhesion. It is always recommended to use a color matched sealant where available. Visit OSITough.com for a complete color match listing.

Clean-up: Clean tools and uncured sealant residue immediately with mineral spirits or paint thinner following solvent manufacturers precautions. Cured sealant must be carefully cut away with a sharp-edged tool. **NOTE:** Use of solvents may damage prefinished siding and trim materials. Always test a small area before proceeding! Painting affected areas may be only remedy.



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STORAGE & DISPOSAL

NOT DAMAGED BY FREEZING. Store away from heat, flame and spark in a cool, dry, well-ventilated area. Storing product in too hot or too cold of conditions will considerably reduce Shelf Life of unopened containers. Use an approved hazardous waste facility for disposal.

LABEL PRECAUTIONS

WARNING! UNCURED SEALANT IRRITATES EYES, SKIN AND RESPIRATORY TRACT.

WARNING! Contains vinyl trimethoxysilane. May be harmful if inhaled or swallowed. Methanol is released during application and cure, which may affect the nervous system causing dizziness, headache or nausea. Use in a well-ventilated area. Do not breathe vapors. Avoid eye and skin contact. Prolonged or repeated skin contact with uncured sealant may cause irritation. Wear gloves and safety glasses when applying product. Remove contact lenses before using sealant. Wash hands after using. **FIRST AID:** For eye contact flush with water for 15 minutes. Call a physician if irritation develops and persists. For skin contact, wash thoroughly with soap and water. If affected by inhalation, remove to fresh air and get medical attention. If ingested, do not induce vomiting; call a physician or Poison Control Center immediately. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

Refer to the Safety Data Sheet (SDS) for further information.

DISCLAIMER

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Henkel recommends purchasers/users should test the products to determine acceptable quality and suitability for the intended use. All adhesive/sealant applications should be tested under simulated or actual end use conditions to ensure the adhesive/sealant meets or exceeds all required project specifications. Since assembly conditions may be critical to adhesive/sealant performance, it is also recommended that testing be performed on specimens assembled under simulated or actual production conditions. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

LIMITED WARRANTY

This product is warranted to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty, express or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This limited warranty gives you specific legal rights, which vary from state to state. Henkel may be contacted at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET for warranty assistance.



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For Technical Assistance call: 1-800-624-7767 – Mon-Fri - 9:00a – 4:00p ET
www.ositough.com



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Henkel Corporation - Professional & Consumer Adhesives Headquarters - Rocky Hill, CT 06067
www.henkel-northamerica.com



BlueDEF Diesel Exhaust Fluid

Safety Data Sheet

according to: Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier	
Product form	: Mixture
Product name	: BlueDEF Diesel Exhaust Fluid
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/mixture	: Solution for NOx reduction in SCR systems
1.3. Details of the supplier of the safety data sheet	
Old World Industries, LLC 4065 Commercial Ave. Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com	
1.4. Emergency telephone number	
Emergency number	: (800) 424-9300; (703) 527 3887 (International) Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
GHS-US classification	: Not classified
2.2. Label elements	
GHS-US labelling	
Signal word (GHS-US)	: None
Hazard statements (GHS-US)	: None
Precautionary statements (GHS-US)	: None
2.3. Other hazards	
No additional information available	
2.4. Unknown acute toxicity (GHS-US)	
No data available	

SECTION 3: Composition/information on ingredients

3.1. Substance			
Not applicable			
3.2. Mixture			
Name	Product identifier	% by wt	GHS-US classification
Water	(CAS No) 7732-18-5	67.5	Not classified
urea	(CAS No) 57-13-6	32.5	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effects, both acute and delayed	
symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.

BlueDEF Diesel Exhaust Fluid

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Foam. Dry powder. Carbon dioxide. Sand.

Unsuitable extinguishing media

: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions

: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: The EPA has no established reportable quantity for spills for this material, secondary containment is not specified.

6.1.1. For non-emergency personnel

Emergency procedures

: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment

: Equip cleanup crew with proper protection.

Emergency procedures

: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Dilute with plenty of water and mop up. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container closed when not in use.

Incompatible products

: Strong bases. Strong acids.

Incompatible materials

: Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment

: Avoid all unnecessary exposure. Gloves. Protective goggles.



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Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless; Clear
Odor	: ammonia odor
Odor threshold	: No data available
pH	: 9 - 10
Relative evaporation rate (butylacetate=1)	: < 1
Freezing point	: -11 °C (12 °F)
Boiling point	: > 100 °C (212 °F)
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: Not Applicable
Relative vapor density at 20 °C	: 0.6 H ₂ O, >1
Specific Gravity	: 1.09
Solubility	: Soluble in water. Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information	
No additional information available	

SECTION 10: Stability and reactivity

10.1. Reactivity	
No additional information available	

10.2. Chemical stability	
Stable under normal conditions.	

10.3. Possibility of hazardous reactions	
Not established.	

10.4. Conditions to avoid	
No additional information available	

10.5. Incompatible materials	
Strong acids. Strong bases. oxidizing agents (peroxides, chromates, dichromates).	

10.6. Hazardous decomposition products	
Carbon monoxide. Carbon dioxide. Fume.	

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Acute toxicity	: Not classified

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urea (57-13-6)	
LD50 oral rat	8,471 mg/kg (Rat)
LD50 dermal rat	> 3,200 mg/kg (Rat)
LD50 dermal rabbit	> 21,000 mg/kg (Rabbit)
ATE US (oral)	8,471 mg/kg bodyweight
Skin corrosion/irritation	: Not classified pH: 9 - 10
Serious eye damage/irritation	: Not classified pH: 9 - 10
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

urea (57-13-6)	
LC50 fish 1	> 6,810 mg/l (96 h; <i>Leuciscus idus</i>)
EC50 Daphnia 1	> 10,000 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	17,500 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 Daphnia 2	> 10,000 mg/l (24 h; <i>Daphnia magna</i>)
LM fish 1	17,500 ppm (96 h; <i>Poecilia reticulata</i>)
Threshold limit other aquatic organisms 1	120,000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10,000 mg/l (<i>Pseudomonas putida</i>)
Threshold limit algae 2	> 10,000 mg/l (168 h; <i>Scenedesmus quadricauda</i>)

12.2. Persistence and degradability

urea (57-13-6)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water.
ThOD	0.27 g O ₂ /g substance

12.3. Bioaccumulative potential

urea (57-13-6)	
BCF fish 1	1 (72 h; <i>Brachydanio rerio</i> ; Fresh water)
BCF other aquatic organisms 1	11700 (<i>Chlorella sp.</i>)
Log Pow	-2.59 - -1.59
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

12.5. Other adverse effects

Effect on ozone layer	:
Effect on global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. As a non-hazardous liquid waste, it should be solidified with stabilizing agents such as sand, fly ash, or clay absorbent, so that no free liquid remains before disposal to an industrial waste landfill.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not a dangerous good in sense of transport regulations

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

UN-No. (IMDG) : Not regulated by IMDG (in quantities under 5,000 lbs in any one inner package)

Air transport

UN-No.(IATA) : Not regulated by IATA (in quantities under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information

15.1. US Federal regulations

BlueDEF Diesel Exhaust Fluid		
EPA TSCA Regulatory Flag		This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA)
RQ (Reportable quantity, section 304 of EPA's List of Lists)		None. This material is not classified as hazardous under U.S. EPA regulations.
SARA Section 302 Threshold Planning Quantity (TPQ)		No extremely hazardous substances are in this product.
SARA Section 311/312 Hazard Classes		Urea. No hazards resulting from the material as supplied.

urea (57-13-6)		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	

15.2. International regulations

CANADA

BlueDEF Diesel Exhaust Fluid		
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria	

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

BlueDEF Diesel Exhaust Fluid		
Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).		

15.3. US State regulations

BlueDEF Diesel Exhaust Fluid

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SECTION 16: Other information

NFPA health hazard

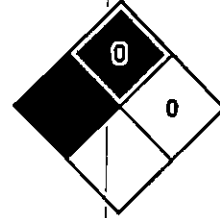
NFPA fire hazard

NFPA reactivity

1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

0 - Materials that will not burn.

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

Flammability

Physical

Personal Protection

: 1 Slight Hazard - Irritation or minor reversible injury possible

: 0 Minimal Hazard

: 0 Minimal Hazard

: B

SDS GHS US (GHS HazCom 2012) OWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Fleet Charge 50/50 Prediluted Antifreeze & Coolant

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : Fleet Charge 50/50 Prediluted Antifreeze & Coolant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Heavy Duty Engine Coolant

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
 4065 Commercial Ave.
 Northbrook, IL 60062 - USA
 T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
 Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
 Acute Tox. 4 (Oral) H302
 STOT RE 2 H373
 Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H302 - Harmful if swallowed
 H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe mist, spray, vapors
 P264 - Wash affected areas thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear personal protective equipment as required
 P301+P310 - If swallowed: Immediately call doctor/physician or poison center
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P405 - Store locked up
 P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

Fleet Charge 50/50 Prediluted Antifreeze & Coolant

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance			
of applicable			
3.2. Mixture			
Name	Product Identifier	% by wt.	GHS-US classification
ethylene glycol	(CAS No) 107-21-1	<= 50	Acute Tox. 4 (Oral), H302
water	(CAS No) 7732-18-5	< 50	Not classified
diethylene glycol	(CAS No) 111-46-6	< 3	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
denatonium benzoate	(CAS No) 3734-33-6	30 - 50 ppm	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical advice. Allow the victim to rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
First-aid measures after skin contact	: Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes). Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label).
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: Rinse immediately with plenty of water. Get medical advice/attention.
First-aid measures after ingestion	: Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.
4.2. Most important symptoms and effects, both acute and delayed	
Symptoms/injuries	: Causes damage to organs (kidneys) (oral).
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).
4.3. Indication of any immediate medical attention and special treatment needed	
A more effective intravenous antidote for physician uses is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenases which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.	

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media	: Water fog. Fine water spray. Alcohol-resistant foam. Foam. Carbon dioxide. Dry chemical powder. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream. May spread fire.
5.2. Special hazards arising from the substance or mixture	
Fire hazard	: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
Reactivity	: No dangerous reactions known under normal conditions of use.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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Special protective equipment for fire fighters : Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Refer to section 8.2.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -37 °C (-34 °F). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.

Incompatible products : Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	100.00 mg/m ³
USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract (URT) & Eye irritant

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : If exposed to levels above exposure limits wear appropriate respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Color	: Pink
odor	: Mild
odor threshold	: No data available
pH	: 10.5 - 11
Relative evaporation rate (butylacetate=1)	: Nil
Freezing point	: -37 °C (-34 °F)
Boiling point	: 107 °C (224 °F)
Flash point	: 116 °C (241 °F) [100% Ethylene Glycol] <i>ASTM D56</i>
Auto-ignition temperature	: 400 °C (752 °F) [100% Ethylene Glycol] <i>Literature</i>
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0.1 mm Hg @ 20 °C
Relative vapor density at 20 °C	: No data available
Specific Gravity	: 1.07
Density	: 1.04 kg/l (8.7 lbs/gal)
Solubility	: Water: Complete
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not applicable.
Oxidizing properties	: Not applicable.
Explosive limits	: Not applicable.

9.2. Other information

VOC content : 0.00 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from any flames or sparking source. Extremely high or low temperatures.

10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Fume. Alcohols. Aldehydes. Ethers.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

diethylene glycol (111-46-6)	
LD50 oral rat	12,565 mg/kg (Rat)
LD50 dermal rabbit	11,890 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11,890 mg/kg bodyweight
ethylene glycol (107-21-1)	
LD50 oral rat	> 5,000 mg/kg (Rat)
ATE US (oral)	500 mg/kg bodyweight

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denatonium benzoate (3734-33-6)	
D50 oral rat	584 mg/kg (Rat)
D50 dermal rabbit	> 2,000 mg/kg (Rabbit)
ATE US (oral)	584 mg/kg bodyweight
Skin corrosion/irritation	: Not classified pH: 10.5 - 11
Serious eye damage/irritation	: Not classified pH: 10.5 - 11
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

SECTION 12: Ecological information

12.1. Toxicity

diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000 ppm (24 h; Carassius auratus)
EC50 other aquatic organisms 1	1,174 mg/l (Xenopus laevis)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	61,072 ppm (168 h; Poecilia reticulata)
TLM fish 1	> 32,000 mg/l (96 h; Gambusia affinis)
TLM other aquatic organisms 1	> 1,000 ppm (96 h)
Threshold limit other aquatic organisms 1	1,174 mg/l (72 h; Xenopus laevis; Toxicity test)
Threshold limit other aquatic organisms 2	10,745 mg/l (16 h; Protozoa; Toxicity test)
Threshold limit algae 1	2,700 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	100 mg/l (Selenastrum capricornutum)
ethylene glycol (107-21-1)	
LC50 fish 1	53,000 mg/l (96 h; Pimephales promelas; Static system)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	40,761 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Static system)
Threshold limit algae 1	> 10,000 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	2,000 mg/l (192 h; Microcystis aeruginosa)
denatonium benzoate (3734-33-6)	
LC50 fish 1	> 1,000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	13 mg/l (48 h; Daphnia magna)

12.2. Persistence and degradability

diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance
Chemical oxygen demand (COD)	1.51 g O ₂ /g substance
ThOD	1.51 g O ₂ /g substance
BOD (% of ThOD)	0.015 % ThOD
ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.

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diethylene glycol (111-46-6)	
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
BOD (% of ThOD)	0.36 % ThOD
denatonium benzoate (3734-33-6)	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.

12.3. Bioaccumulative potential

diethylene glycol (111-46-6)	
Log Pow	-1.98
Bioaccumulative potential	Bioaccumulation: not applicable.
ethylene glycol (107-21-1)	
BCF fish 1	10 (72 h; <i>Leuciscus idus</i>)
BCF other aquatic organisms 1	0.21 - 0.6 (<i>Procambarus</i> sp.; Chronic)
BCF other aquatic organisms 2	190 (24 h; Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.
denatonium benzoate (3734-33-6)	
Log Pow	1.78 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

diethylene glycol (111-46-6)	
Surface tension	0.0485 N/m
ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20 °C / 68 °F)

15. Other adverse effects


Effect on ozone layer	: No known effect on the ozone layer
Effect on global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No.(DOT)	: 3082
DOT NA no.	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s.
Department of Transportation (DOT) Hazard Classes	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)
	
DOT Symbols	: G - Identifies PSN requiring a technical name
Shipping group (DOT)	: III - Minor Danger

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DOT Packaging Exceptions (49 CFR 173.xxx)	155
DOT Packaging Non Bulk (49 CFR 173.xxx)	203
DOT Packaging Bulk (49 CFR 173.xxx)	241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	No limit
DOT Vessel Stowage Location	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).
ADR	No additional information available
Transport by sea	
UN-No. (IMDG)	: Not regulated by IMDG (in quantities under 5,000 lbs in any one inner package)
Air transport	
UN-No.(IATA)	: Not regulated by IATA (in quantities under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information

15.1. US Federal regulations

Fleet Charge 50/50 Prediluted Antifreeze & Coolant	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed
diethylene glycol (111-46-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb(s)
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Ethylene glycol is subject to Tier 1 and/or Tier II annual inventory reporting.
SARA Section 313 - Emission Reporting	Ethylene glycol is subject to Form R Reporting requirements.
denatonium benzoate (3734-33-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

Fleet Charge 50/50 Prediluted Antifreeze & Coolant	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

WHMIS Classification



Class D Division 2
Subdivision A - Very
toxic material
causing other toxic
effects

Additional Regulations

No additional information available

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Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

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DSL (Canada): The intentional ingredients of this product are listed
ECL (South Korea): The intentional ingredients of this product are listed.
EINECS (Europe): The intentional ingredients of this product are listed
ENCS (Japan): The intentional ingredients of this product are listed

15.3. US State regulations

Ethylene glycol (107-21-1)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard

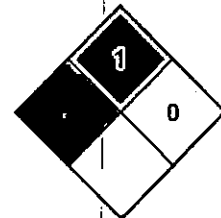
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 1 Slight Hazard

Physical

: 0 Minimal Hazard

Personal Protection

: B

SDS GHS US (GHS HazCom 2012) OWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.



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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier	
Product form	Mixture
Product name	NAPA Concentrate Antifreeze & Coolant
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/mixture	Automotive Engine Antifreeze & Coolant
1.3. Details of the supplier of the safety data sheet	
Old World Industries, LLC 4065 Commercial Ave. Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com	
1.4. Emergency telephone number	
Emergency number	(800) 424-9300; (703) 527 3887 (International) Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
GHS-US classification Acute Tox. 4 (Oral) H302 STOT RE 2 H373 Full text of H-phrases: see section 16	
2.2. Label elements	
GHS-US labelling Hazard pictograms (GHS-US)	 GHS07
	 GHS08
Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	: H302 - Harmful if swallowed H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P260 - Do not breathe mist, spray, vapors P264 - Wash affected areas thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear personal protective equipment as required P301+P310 - If swallowed: Immediately call doctor/physician or poison center P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P308+P313 - If exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations
2.3. Other hazards	
No additional information available	
2.4. Unknown acute toxicity (GHS-US)	
No data available	

SECTION 3: Composition/information on ingredients

3.1. Substance	
Not applicable	

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3.2 Mixture			
Name	Product identifier	% by wt	GHS-US classification
ethylene glycol	(CAS No) 107-21-1	90 - 97	Acute Tox. 4 (Oral), H302
diethylene glycol	(CAS No) 111-46-6	< 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
water	(CAS No) 7732-18-5	< 4	Not classified
denatonium benzoate	(CAS No) 3734-33-6	30 - 50 ppm	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical advice. Allow the victim to rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
First-aid measures after skin contact	: Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes). Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label).
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: Rinse immediately with plenty of water. Get medical advice/attention.
First-aid measures after ingestion	: Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.
4.2. Most important symptoms and effects, both acute and delayed	
Symptoms/injuries	: Causes damage to organs (kidneys) oral.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).
4.3. Indication of any immediate medical attention and special treatment needed	
A more effective intravenous antidote for physician uses is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.	

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media	: Water fog. Fine water spray. Alcohol-resistant foam. Foam. Carbon dioxide. Dry chemical powder. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream. May spread fire.
5.2. Special hazards arising from the substance or mixture	
Fire hazard	: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
Reactivity	: No dangerous reactions known under normal conditions of use.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Special protective equipment for fire fighters	: Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection. Refer to section 8.2.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.	
6.3. Methods and material for containment and cleaning up	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections	
See Heading 8. Exposure controls and personal protection.	

SECTION 7: Handling and storage

7.1. Precautions for safe handling	
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.
7.2. Conditions for safe storage, including any incompatibilities	
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -18 °C (0 °F). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.
Compatible products	: Keep away from strong acids, strong bases and oxidizing agents.
Incompatible materials	: Sources of ignition.
7.3. Specific end use(s)	
No additional information available	

SECTION 8: Exposure controls/personal protection

8.1. Control parameters		
ethylene glycol (107-21-1)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	100.00 mg/m ³
USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract (URT) & Eye irritant
8.2. Exposure controls		
Personal protective equipment	: Avoid all unnecessary exposure. Gloves. Safety glasses.	
	 	
Hand protection	: Wear protective gloves.	
Eye protection	: Chemical goggles or safety glasses.	
Respiratory protection	: If exposed to levels above exposure limits wear appropriate respiratory protection.	
Other information	: Do not eat, drink or smoke during use.	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties	
Physical state	: Liquid
Color	: Green
Odor	: Mild

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Odor threshold	: No data available
1) 50% water solution	: 10.5 - 11
Relative evaporation rate (butylacetate=1)	: Nil
Freezing point	: -18 °C (0 °F)
Boiling point	: 158 °C (317 °F)
Flash point	: 116 °C (241 °F) [100% Ethylene Glycol] <i>ASTM D56</i>
Auto-ignition temperature	: 400 °C (752 °F) [100% Ethylene Glycol] <i>Literature</i>
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0,1 mm Hg @ 20 °C
Relative vapor density at 20 °C	: No data available
Specific Gravity	: 1.12
Density	: 1.12 kg/l (9.3 lbs/gal)
Solubility	: Water: Complete
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: 3.2 - 15.3 vol %
9.2. Other information	
VOC content	: 0.00 %

SECTION 10: Stability and reactivity

10.1. Reactivity	
No dangerous reactions known under normal conditions of use.	
10.2. Chemical stability	
Stable.	
10.3. Possibility of hazardous reactions	
Hazardous polymerization will not occur.	
10.4. Conditions to avoid	
Keep away from any flames or sparking source. Extremely high or low temperatures.	
10.5. Incompatible materials	
Keep away from strong acids, strong bases and oxidizing agents.	
10.6. Hazardous decomposition products	
Carbon dioxide. Carbon monoxide. Fume. Alcohols. Aldehydes. Ethers.	

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Acute toxicity	: Oral: Harmful if swallowed.
ethylene glycol (107-21-1)	
LD50 oral rat	> 5,000 mg/kg (Rat)
ATE US (oral)	500 mg/kg bodyweight
diethylene glycol (111-46-6)	
LD50 oral rat	12,565 mg/kg (Rat)
LD50 dermal rabbit	11,890 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11,890 mg/kg bodyweight
benzotriazolium benzoate (3734-33-6)	
LD50 oral rat	584 mg/kg (Rat)

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ethylene glycol (107-21-1)	
D50 dermal rabbit	> 2,000 mg/kg (Rabbit)
TE US (oral)	584 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

SECTION 12: Ecological information

12.1. Toxicity

ethylene glycol (107-21-1)	
LC50 fish 1	53,000 mg/l (96 h; Pimephales promelas; Static system)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	40,761 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Static system)
Threshold limit algae 1	> 10,000 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	2,000 mg/l (192 h; Microcystis aeruginosa)
diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000 ppm (24 h; Carassius auratus)
LC50 other aquatic organisms 1	1,174 mg/l (Xenopus laevis)
EC50 Daphnia 1	> 10,000 mg/l (24 h; Daphnia magna)
LC50 fish 2	61,072 ppm (168 h; Poecilia reticulata)
TLM fish 1	> 32,000 mg/l (96 h; Gambusia affinis)
TLM other aquatic organisms 1	> 1,000 ppm (96 h)
Threshold limit other aquatic organisms 1	1,174 mg/l (72 h; Xenopus laevis; Toxicity test)
Threshold limit other aquatic organisms 2	10,745 mg/l (16 h; Protozoa; Toxicity test)
Threshold limit algae 1	2,700 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	100 mg/l (Selenastrum capricornutum)
denatonium benzoate (3734-33-6)	
LC50 fish 1	> 1,000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	13 mg/l (48 h; Daphnia magna)

12.2. Persistence and degradability

ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
BOD (% of ThOD)	0.36 % ThOD
diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance
Chemical oxygen demand (COD)	1.51 g O ₂ /g substance
ThOD	1.51 g O ₂ /g substance

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ethylene glycol (107-21-1)	
OD (% of ThOD)	0.015 % ThOD
denatonium benzoate (3734-33-6)	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.

12.3. Bioaccumulative potential

ethylene glycol (107-21-1)	
BCF fish 1	10 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp.; Chronic)
BCF other aquatic organisms 2	190 (24 h; Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
diethylene glycol (111-46-6)	
Log Pow	-1.98
Bioaccumulative potential	Bioaccumulation: not applicable.
denatonium benzoate (3734-33-6)	
Log Pow	1.78 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20 °C / 68 °F)
diethylene glycol (111-46-6)	
Surface tension	0.0485 N/m

12.5. Other adverse effects


Effect on ozone layer	: No known effect on the ozone layer
Effect on global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No.(DOT)	: 3082
DOT NA no.	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s.
Department of Transportation (DOT) Hazard Classes	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)
	
DOT Symbols	: G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241

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DOT Quantity Limitations Passenger aircraft/rail (CFR 173.27)	: No limit
T Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	: Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).
ADR	No additional information available
Transport by sea	
UN-No. (IMDG)	: Not regulated by IMDG (in quantities under 5,000 lbs in any one inner package)
Air transport	
UN-No.(IATA)	: Not regulated by IATA (in quantities under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information

15.1. US Federal regulations

NAPA Concentrate Antifreeze & Coolant	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed
ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb(s)
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.
SARA Section 313 - Emission Reporting	Ethylene glycol is subject to Form R Reporting requirements.
diethylene glycol (111-46-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
denatonium benzoate (3734-33-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

NAPA Concentrate Antifreeze & Coolant	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

WHMIS Classification



Class D Division 2
Subdivision A - Very
toxic material
causing other toxic
effects

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

NAPA Concentrate Antifreeze & Coolant

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15.2.2. National regulations	
APA Concentrate Antifreeze & Coolant	
ICSL (Canada): The intentional ingredients of this product are listed ECL (South Korea): The intentional ingredients of this product are listed. EINECS (Europe): The intentional ingredients of this product are listed ENCS (Japan): The intentional ingredients of this product are listed	
15.3. US State regulations	
ethylene glycol (107-21-1)	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
diethylene glycol (111-46-6)	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

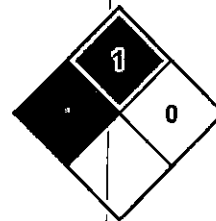
HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Personal Protection : B



SDS GHS US (GHS HazCom 2012) OWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SAFETY DATA SHEET

1. Identification

Product number 1000028751
Product identifier 13 OZ NAPA MAC'S BATTERY TERMINAL CLEANER 1072
Company information NAPA Balkamp
2601 Stout Heritage Parkway
Plainfield, IN 46168 United States
Company phone General Assistance 1-317-754-3900
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Recommended use CLEANER
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols. Category 1
Health hazards Not classified.
OSHA defined hazards Not classified.
Label elements



Signal word Danger
Hazard statement Extremely flammable aerosol.
Precautionary statement
Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
Response Wash hands after handling.
Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	2.5 - 10
Isopropyl Alcohol		67-63-0	2.5 - 10
Propane		74-98-6	2.5 - 10
Sodium Carbonate Anhydrous		497-19-8	1 - 2.5
Other components below reportable levels			80 - 90

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
5. Fire-fighting measures	
Suitable extinguishing media	Not available.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	400 ppm
		1800 mg/m3
		1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3
		800 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
Propane (CAS 74-98-6)	TWA	980 mg/m3
		400 ppm
		1800 mg/m3
		1000 ppm

Biological limit values

ACGIH Biological Exposure Indices		Determinant	Specimen	Sampling Time
Components	Value			
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin protection**
- Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
- Other** Wear suitable protective clothing.
- Respiratory protection** If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
- Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

- Physical state** Gas.
- Form** Aerosol.
- Color** Not available.
- Odor** Not available.
- Odor threshold** Not available.

pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	-156.0 °F (-104.4 °C) PROPELLANT estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	2.5 % estimated
Flammability limit - upper (%)	12 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	60 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.95 @70F estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Nitrates. Isocyanates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
Isopropyl Alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	16.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	> 10000 ppm, 6 Hours
Oral		
LD50	Rat	5.84 g/kg
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l 658 mg/l/4h
Sodium Carbonate Anhydrous (CAS 497-19-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Guinea pig	800 mg/m3, 2 Hours
<i>Aerosol</i>		
LC50	Mouse	1200 mg/m3, 2 Hours
	Rat	2300 mg/m3, 2 Hours
LC50	Rat	2.3 mg/l, 2 hours supplier
Oral		
LD50	Rat	2800 mg/kg
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not regulated.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

Ecological information

ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Isopropyl Alcohol (CAS 67-63-0)		
Aquatic		
Algae	IC50	1000.0001 mg/L, 72 Hours
Crustacea	EC50	13299 mg/L, 48 Hours
Fish	LC50	> 1400 mg/l, 96 hours
Sodium Carbonate Anhydrous (CAS 497-19-8)		
Aquatic		
Crustacea	EC50	265 mg/L, 48 Hours
		Water flea (Ceriodaphnia dubia) 156.6 - 298.9 mg/l, 48 hours
Fish	LC50	300 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Butane	2.89
Isopropyl Alcohol	0.05
Propane	2.36

mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950

UN proper shipping name Aerosols, flammable, (each not exceeding 1 L capacity)

Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions N82

Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Environmental hazards No.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.
Packaging Exceptions LTD QTY

IMDG

UN number UN1950
UN proper shipping name AEROSOLS
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) None
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances, CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. Rhode Island RTK

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)

Listed: January 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 06-27-2016

Version # 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Product and Company Identification: Product and Company Identification

SAFETY DATA SHEET

1. Identification

Product identifier: NAPA MAC'S 1073 BATTERY TERMINAL PROTECTOR NON CHLORINATED

Other means of identification

SDS number: RE1000036023

Recommended restrictions

Product use: Coating

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: NAPA BALKAMP
Address: 1601 Whitaker Rd
INDIANAPOLIS, IN 46168
Telephone: 317-837-2800
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Toxic to reproduction Category 2

Specific Target Organ Toxicity -
Single Exposure Category 3¹

Specific Target Organ Toxicity -
Repeated Exposure Category 2

Aspiration Hazard Category 1

Target Organs

1. Narcotic effect.

Environmental Hazards

Acute hazards to the aquatic
environment Category 3

Label Elements

Hazard Symbol:



Signal Word:

Danger

Hazard Statement:	Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Harmful to aquatic life.
Precautionary Statements	
Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing.
Storage:	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Petrolatum	8009-03-8	20 - <50%
Benzene, methyl-	108-88-3	10 - <25%
Propane	74-98-6	10 - <20%
Butane	106-97-8	10 - <20%
2-Propanone	67-64-1	10 - <20%
Distillates (petroleum), hydrotreated light	64742-47-8	5 - <10%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Inhalation:	Move to fresh air.

Skin Contact:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Most important symptoms/effects, acute and delayed	
Symptoms:	No data available.
Hazards:	No data available.
Indication of immediate medical attention and special treatment needed	
Treatment:	No data available.

5. Fire-fighting measures	
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General Fire Hazards:	Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Vapors may travel considerable distance to a source of ignition and flash back.
Special protective equipment and precautions for firefighters	
Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures	
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Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
Notification Procedures:	Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
Environmental Precautions:	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling:

Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin.

Conditions for safe storage, including any incompatibilities:

Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 2

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Petrolatum - Inhalable fraction.	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (01 2010)
Petrolatum - Mist.	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Benzene, methyl-	TWA	5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	150 ppm 560 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm 375 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm 375 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA	200 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm 560 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Propane	REL	1,000 ppm 1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Butane	REL	800 ppm 1,900 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm 1,900 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
2-Propanone	STEL	1,000 ppm 2,400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	1,000 ppm 2,400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	250 ppm	US. ACGIH Threshold Limit Values (03 2015)
	TWA	750 ppm 1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm	US. ACGIH Threshold Limit Values (03 2015)
Distillates (petroleum), hydrotreated light	REL	250 ppm 590 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m ³	US. ACGIH Threshold Limit Values (2008)
	TWA	400 ppm 1,600 mg/m ³	US. ACGIH Threshold Limit Values (2008)
Distillates (petroleum), hydrotreated heavy naphthenic	TWA	400 ppm 1,600 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm 2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Distillates (petroleum), hydrotreated heavy naphthenic - Mist.	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Distillates (petroleum), hydrotreated heavy naphthenic	TWA	5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

Distillates (petroleum), hydrotreated heavy naphthenic - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Distillates (petroleum), hydrotreated heavy naphthenic	REL	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL (03 2015)

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection:

Wear safety glasses with side shields (or goggles).

**Skin Protection
Hand Protection:**

No data available.

Other:

Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures:

Observe good industrial hygiene practices. Avoid contact with eyes. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:

liquid

Form:

Spray Aerosol

Color:

No data available.

Odor:

No data available.

Odor threshold:

No data available.

pH:

No data available.

Melting point/freezing point:

No data available.

Initial boiling point and boiling range:

Estimated 56.05 °C

Flash Point:

Estimated -104.4 °C

Evaporation rate:

No data available.

Flammability (solid, gas): Upper/lower limit on flammability or explosive limits Flammability limit - upper (%): Flammability limit - lower (%): Explosive limit - upper (%): Explosive limit - lower (%): Vapor pressure: Vapor density: Density: Relative density: Solubility(ies) Solubility in water: Solubility (other): Partition coefficient (n-octanol/water): Auto-ignition temperature: Decomposition temperature: Viscosity:	<p>No data available.</p> <p>Estimated 10.3 %(V)</p> <p>Estimated 2.1 %(V)</p> <p>No data available.</p> <p>No data available.</p> <p>2,757 - 4,136 hPa (20 °C)</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p>
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10. Stability and reactivity	
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Reactivity: Chemical Stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible Materials: Hazardous Decomposition Products:	<p>No data available.</p> <p>Material is stable under normal conditions.</p> <p>No data available.</p> <p>Avoid heat or contamination.</p> <p>No data available.</p> <p>No data available.</p>
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11. Toxicological information	
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Information on likely routes of exposure Inhalation: Skin Contact: Eye contact: Ingestion: Symptoms related to the physical, chemical and toxicological characteristics Inhalation: Skin Contact: Eye contact: Ingestion: Information on toxicological effects	<p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p>
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Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Petrolatum
LD 50 (Rat): > 5,000 mg/kg
LD 50 (Rat): > 5,000 mg/kg
LD 50 (Rat): > 5,000 mg/kg
LD 50 (Rat): > 5,000 mg/kg

Benzene, methyl- LD 50 (Rat): 5,580 mg/kg

2-Propanone LD 50 (Rat): 5,800 mg/kg

Distillates (petroleum), hydrotreated light LD 50 (Rat): > 5,000 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Petrolatum
LD 50 (Rabbit): > 3,600 mg/kg
LD 50 (Rabbit): > 2,000 mg/kg
LD 50 (Rat): > 2,000 mg/kg

Benzene, methyl- LD 50 (Rabbit): > 5,000 mg/kg

2-Propanone LD 50 (Rabbit): > 7,426 mg/kg

Distillates (petroleum), hydrotreated light LD 50 (Rabbit): > 2,000 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Benzene, methyl-
LC 50 (Rat): 28.1 mg/l
LC 50: > 100 mg/l

Propane
LC 50: > 100 mg/l
LC 50: > 100 mg/l

Butane
LC 50: > 100 mg/l
LC 50: > 100 mg/l

2-Propanone
LC 50 (Rat): 50.1 mg/l
LC 50: > 5 mg/l

Distillates (petroleum), hydrotreated light
LC 50: > 5 mg/l
LC 50: > 20 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Petrolatum
LOAEL (Rat(Male), Oral, 13 Weeks): 125 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Rat(Female, Male), Oral, 2 yr): 5,000 mg/kg Oral Experimental result, Key study
NOAEL (Rat(Female, Male), Oral, 2 yr): > 5,700 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Supporting study

<p>Benzene, methyl-</p> <p>Propane</p> <p>Butane</p> <p>2-Propanone</p> <p>Distillates (petroleum), hydrotreated light</p>	<p>NOAEL (Rat(Female, Male), Oral, 90 d): 1.5 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study NOAEL (Rat(Female, Male), Oral, 90 d): 1,500 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg (Target Organ(s): Liver, Kidney) Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation Experimental result, Key study</p> <p>NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study</p> <p>NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study</p> <p>NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study</p> <p>NOAEL (Rat(Female, Male), Inhalation): >= 24 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study</p>	
<p>Skin Corrosion/Irritation Product:</p> <p>Specified substance(s): Petrolatum</p> <p>Benzene, methyl-</p> <p>2-Propanone</p> <p>Distillates (petroleum), hydrotreated light</p>	<p>No data available.</p> <p>in vivo (Rabbit): Not irritant Read-across from supporting substance (structural analogue or surrogate), Key study in vivo (Rabbit): Not irritant Read-across from supporting substance (structural analogue or surrogate), Key study</p> <p>in vivo (Rabbit): Irritating Experimental result, Key study</p> <p>in vivo (Rabbit): Not irritant Experimental result, Supporting study</p> <p>in vivo (Rabbit): Not irritant Experimental result, Key study</p>	
<p>Serious Eye Damage/Eye Irritation Product:</p> <p>Specified substance(s): Petrolatum</p> <p>Benzene, methyl-</p> <p>2-Propanone</p> <p>Distillates (petroleum), hydrotreated light</p>	<p>No data available.</p> <p>Rabbit, 24 - 72 hrs: Not irritating Rabbit, 24 - 72 hrs: Not irritating Rabbit, 24 - 72 hrs: Not irritating</p> <p>Rabbit, 24 - 72 hrs: Not irritating</p> <p>Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant</p> <p>Rabbit, 24 - 72 hrs: Not irritating</p>	
<p>Respiratory or Skin Sensitization Product:</p>	<p>No data available.</p>	

<p>Specified substance(s): Petrolatum</p> <p>Benzene, methyl-2-Propanone Distillates (petroleum), hydrotreated light</p> <p>Carcinogenicity Product:</p> <p>IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified</p> <p>US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified</p> <p>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified</p> <p>Germ Cell Mutagenicity</p> <p>In vitro Product:</p> <p>In vivo Product:</p> <p>Reproductive toxicity Product:</p> <p>Specified substance(s): Benzene, methyl-</p> <p>Specific Target Organ Toxicity - Single Exposure Product: Specified substance(s): Benzene, methyl-2-Propanone</p> <p>Specific Target Organ Toxicity - Repeated Exposure Product: Specified substance(s): Benzene, methyl-</p> <p>Target Organs Specific Target Organ Toxicity - Single Exposure: Narcotic effect.</p> <p>Aspiration Hazard Product:</p> <p>Specified substance(s): Benzene, methyl-Distillates (petroleum), hydrotreated light</p> <p>Other effects:</p>	<p>Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>Suspected of damaging fertility or the unborn child.</p> <p>No data available.</p> <p>Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects. Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.</p> <p>No data available.</p> <p>Category 2</p> <p>No data available.</p> <p>May be fatal if swallowed and enters airways. May be fatal if swallowed and enters airways.</p> <p>No data available.</p>	
<p>12. Ecological information</p>		
<p>Ecotoxicity: SDS_US - RE1000036023</p>		<p>9/15</p>

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Petrolatum

LL 50 (Pimephales promelas, 96 h): > 100 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Pimephales promelas, 96 h): >= 100 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
LL 50 (Oncorhynchus mykiss, 96 h): > 1,000 mg/l QSAR QSAR, Supporting study

Benzene, methyl-

LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study

Propane

LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study

Butane

LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study

2-Propanone

LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Petrolatum

NOAEL (Daphnia magna, 48 h): >= 10,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
LL 50 (Gammarus pulex, 96 h): > 10,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
EC 50 (Daphnia magna, 48 h): > 10,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
LL 50 (Daphnia magna, 48 h): > 1,000 mg/l QSAR QSAR, Supporting study
LL 50 (Gammarus pulex, 24 h): > 10,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study

Benzene, methyl-

LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality
LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study

Butane

LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study

2-Propanone

LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Petrolatum

NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting study
LL 50 (Oncorhynchus mykiss): > 1,000 mg/l QSAR QSAR, Supporting study

Benzene, methyl-

NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study
LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study

Distillates (petroleum),
hydrotreated light

NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s): Petrolatum	NOAEL (Daphnia magna): 10 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study NOAEL (Daphnia magna): >= 1,000 mg/l QSAR QSAR, Supporting study
Benzene, methyl-	LOAEL (Ceriodaphnia dubia): 2.76 mg/l Experimental result, Key study NOAEL (Ceriodaphnia dubia): 0.74 mg/l Experimental result, Key study
2-Propanone	LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
Toxicity to Aquatic Plants Product:	No data available.
Persistence and Degradability	
Biodegradation Product:	No data available.
Specified substance(s): Petrolatum	31 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Supporting study
Benzene, methyl-	100 % (14 d) Detected in water. Experimental result, Weight of Evidence study 86 % Detected in water. Experimental result, Weight of Evidence study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Butane	100 % (385.5 h) Detected in water. Experimental result, Key study
2-Propanone	90.9 % (28 d) Detected in water. Experimental result, Key study
Distillates (petroleum), hydrotreated light	61 % Detected in water. Experimental result, Supporting study
BOD/COD Ratio Product:	No data available.
Bioaccumulative potential	
Bioconcentration Factor (BCF) Product:	No data available.
Specified substance(s): Benzene, methyl-	Leuciscus idus, Bioconcentration Factor (BCF): 90 Aquatic sediment Experimental result, Key study
2-Propanone	Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified
Partition Coefficient n-octanol / water (log Kow) Product:	No data available.
Mobility in soil:	No data available.
Known or predicted distribution to environmental compartments	
Petrolatum	No data available.
Benzene, methyl-	No data available.
Propane	No data available.
Butane	No data available.
2-Propanone	No data available.
Distillates (petroleum), hydrotreated light	No data available.

<p>Other adverse effects:</p>	<p>Harmful to aquatic organisms.</p>	
<p>13. Disposal considerations</p>		
<p>Disposal instructions:</p>	<p>Discharge, treatment, or disposal may be subject to national, state, or local laws.</p>	
<p>Contaminated Packaging:</p>	<p>No data available.</p>	
<p>14. Transport information</p>		
<p>DOT</p> <p>UN Number: UN 1950 UN Proper Shipping Name: Aerosols, flammable Transport Hazard Class(es) Class: 2.1 Label(s): - Packing Group: II Marine Pollutant: No</p> <p>Environmental Hazards: No Marine Pollutant: No</p> <p>Special precautions for user: Not regulated.</p> <p>IMDG</p> <p>UN Number: UN 1950 UN Proper Shipping Name: Aerosols, flammable Transport Hazard Class(es) Class: 2 Label(s): - EmS No.: - Packing Group: -</p> <p>Environmental Hazards: No Marine Pollutant: No</p> <p>Special precautions for user: Not regulated.</p> <p>IATA</p> <p>UN Number: UN 1950 Proper Shipping Name: Aerosols, flammable Transport Hazard Class(es): Class: 2.1 Label(s): - Packing Group: -</p> <p>Environmental Hazards: No Marine Pollutant: No</p> <p>Special precautions for user: Not regulated.</p>		
<p>15. Regulatory information</p>		
<p>US Federal Regulations</p> <p>Restrictions on use: Not known.</p> <p>SDS_US - RE1000036023</p>		<p>12/15</p>

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Benzene, methyl-	lbs. 1000
Propane	lbs. 100
Butane	lbs. 100
2-Propanone	lbs. 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Fire Hazard
- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Flammable aerosol
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Toxic to reproduction
- Specific Target Organ Toxicity - Single Exposure
- Specific Target Organ Toxicity - Repeated Exposure
- Aspiration Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
2-Propanone		
Distillates (petroleum), hydrotreated light		

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Benzene, methyl-	lbs. 1000
Propane	lbs. 100
Butane	lbs. 100
2-Propanone	lbs. 5000
Distillates (petroleum), hydrotreated light	

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Petrolatum	10000 lbs
Benzene, methyl-	10000 lbs
Propane	10000 lbs
Butane	10000 lbs
2-Propanone	10000 lbs
Distillates (petroleum), hydrotreated light	10000 lbs
Distillates (petroleum), hydrotreated heavy naphthenic	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
Benzene, methyl-	lbs	lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Benzene, methyl-

Developmental toxin. 03 2008

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Petrolatum
Benzene, methyl-
Propane
Butane
2-Propanone
Distillates (petroleum), hydrotreated light

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Petrolatum
Benzene, methyl-
Propane
Butane
2-Propanone
Distillates (petroleum), hydrotreated light

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

2-Propanone
Distillates (petroleum), hydrotreated light

Stockholm convention

2-Propanone
Distillates (petroleum), hydrotreated light

Rotterdam convention

2-Propanone
Distillates (petroleum), hydrotreated light

Kyoto protocol

Inventory Status:	
Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

Issue Date:	02/03/2020
Revision Information:	No data available.
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

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SAFETY DATA SHEET

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME: RTV 100 Series

1.2 GENERIC DESCRIPTION: Silicone sealant/adhesive compound

1.3 MANUFACTURED BY: **Novagard Solutions™**
5109 Hamilton Avenue
Cleveland, OH 44114
216-881-8111

1.4 COMPANY WEB SITE: www.novagard.com

1.5 EMERGENCY PHONE NUMBER: CHEMTREC 800-424-9300 (24 hour)

1.6 EMAIL ADDRESS: techsolutions@novagard.net

SECTION 2 – HAZARD IDENTIFICATION

2.1 CLASSIFICATION OF SUBSTANCE

This product is not hazardous according to OSHA/GHS standards.

2.2 LABELING ELEMENTS

None Required

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

3.1 ACCORDING TO EU DIRECTIVES 67/548/EEC AND 1999/45/EC and (EC) 1272/2008

COMPONENT	CAS No.	WT %	EINECS NUMBER	REACH REGISTRATION
Silica, amorphous	68611-44-9	0-15	271-893-4	Yes

SECTION 4 - FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

Eye: Contact with the eyes may cause temporary irritation. Flush eyes with copious amounts of water for a minimum of 15 minutes. If chronic irritation develops contact a physician.

Skin: Contact with skin may cause irritation. Wash contacted areas with soap and water.

Oral: If ingested do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

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SAFETY DATA SHEET

SECTION 5 - FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA Water, CO₂, Dry Chemical, Foam.

5.2 SPECIAL FIRE FIGHTING PROCEDURES None

5.3 HAZARDOUS DECOMPOSITION PRODUCTS

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300° F and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Scrape up and contain for salvage or disposal. Wash all walking surfaces with detergent and water to reduce slipping hazard. Observe all personal and protection equipment recommendations described in Section 5 and 8. Local, state and federal reporting requirements may apply to spills or releases of this matter into the environment. See applicable regulatory compliance information in Section 15.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS Keep container closed when not in use. Avoid contact with skin and eyes.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Local exhaust: Recommended General ventilation: Recommended Eyewash stations: Recommended

8.2 PERSONAL PROTECTIVE EQUIPMENT FOR ROUTINE HANDLING

Eye Protection: Use proper protection - safety glasses as a minimum
Skin Protection: Wash after any contact. Chemical protective gloves are recommended
Respiratory Protection: Not required for properly ventilated areas. If high levels of vapor or mist should accumulate, use NIOSH approved respirator with organic vapor cartridge

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

8.3 Comments

Provide ventilation during use to control exposure within guidelines (see Section 2) or use respiratory protection. Product evolves alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 2 guidelines. Respiratory protection should be considered for exposures resulting from unusual tasks and/or use in non-ventilated areas.

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SAFETY DATA SHEET

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Flash Point:	NA		
Flammability Limits in Air	Upper - Not Determined	Lower - Not Determined	
Physical form	Hazy liquid		
Odor:	vinegar smell		
Specific Gravity @25°C:	1.00		
Boiling Point (@ 760 mm Hg)	Not applicable		
Freezing/melting point	Not applicable		
Vapor pressure:	Not applicable		
Evaporation rate:	Not applicable		
Volatile content:	Not applicable		
Odor threshold	Not applicable		
VOC (EPA method 24):	<25 gm/l	Percent Volatile by volume:	<0.5%
Solubility in water:	< 1.0%		
Solubility in organic solvent:	Mineral spirits		

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable
Hazardous polymerization:	Will not occur
Conditions to avoid:	None known
Materials to avoid:	None known
Conditions to avoid:	None known
Hazardous thermal decomposition and combustion by-products:	Carbon monoxide, carbon dioxide, silicon dioxide, and formaldehyde

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 ACUTE TOXICITY

On Contact Eye:	May irritate eyes
On Contact with Skin:	May cause mild skin irritation
On Inhalation:	Not anticipated during industrial use
Oral:	Not anticipated during industrial use

SECTION 11 - TOXICOLOGICAL INFORMATION (continued)

11.2 CRONIC TOXICITY

Carcinogens:	This product does not contain any ingredients listed by IARC, NTP or OSHA as chemical carcinogens.
Teratogens:	None known
Mutagens:	None known
Reproductive Toxins:	None known

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SAFETY DATA SHEET

SECTION 12 - ECOLOGICAL INFORMATION

12.1 ECOTOXICITY EFFECTS

Mixture is toxic to aquatic organisms.

12.2 PERSISTANCE AND DEGRADABILITY

Solid material that is insoluble in water. The products of degradation are less toxic than the product itself.

12.3 BIOACCUMULATION

No bioaccumulation data is available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal method: Disposal should be made in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Not Regulated for domestic transport

DOT shipping name:	None	DOT hazard class:	None
DOT labels:	None	UN/NA number:	None

European Class: RID (OCTI), ADR (ECE), RAR(IATA) Not Regulated

SECTION 15 - REGULATORY INFORMATION

15.1 INVENTORY STATUS

All chemical substances found in this product comply with the (TSCA) reporting requirements

All chemical components found in this product are listed, exempt or notified via EINECS (ELINCS)

AICS: All components listed, exempt or notified

DSL: All components listed, exempt or notified

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SAFETY DATA SHEET

SECTION 15 - REGULATORY INFORMATION (continued)

15.2 EPA SARA Title III Chemical Listings:

40 CFR 355 Section 302

Extremely Hazardous Substance List:

None found

Section 312, 311 Hazard Class:

None

40 CFR 372.65 Section 313 Toxic Chemical List:

None found

Hazard Rating System:

HMIS: Flammability 1, Reactivity 0, Health 0

NFAPA: Flammability 1, Reactivity 0, Health 0

California Proposition 65:

None

SECTION 16 - OTHER INFORMATION

REVISED: 02-04-2016

The information presented in this Safety Data Sheet relates only to the specific product designated herein, and no warranty, or guarantee, either expressed or implied is made regarding the performance and conditions of this product. This information is based upon information that Novagard believes to be true and accurate; however, it is the responsibility of each user to review this information within the specific context of their intended application.

Printing date 08/24/2023

Reviewed on 08/24/2023

1 Identification

- **Product identifier**
- **Trade name:** Novaflex MultiPurpose Series
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Novagard Solutions Inc
5109 Hamilton Avenue
CLEVELAND, OH 44114
USA
- **Information department:** R&D Department
- **Emergency telephone number:**
CHEMTREC 1-800-424-9300 (USA)
+1 703-741-5970 (International)

2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Toxic to Reproduction 2 H361 Suspected of damaging fertility or the unborn child.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS08 GHS09

- **Signal word** Warning

- **Hazard-determining components of labeling:**

octamethylcyclotetrasiloxane

- **Hazard statements**

Suspected of damaging fertility or the unborn child.

Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Collect spillage.

Store locked up.

(Contd. on page 2)

US

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Trade name: Novaflex MultiPurpose Series

Dispose of contents/container in accordance with local/regional/national/international regulations. (Contd. of page 1)

- Classification system:
- NFPA ratings (scale 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment

• PBT:	
556-67-2	octamethylcyclotetrasiloxane
• vPvB:	
556-67-2	octamethylcyclotetrasiloxane

3. Composition/Information on Ingredients

- Chemical characterization: Mixture
- Description: Mixture of the substances listed below with nonhazardous additions.

• Dangerous components:		
22984-54-9	butan-2-one O,O',O''-(methylsilyldiyl)trioxime	0-5%
556-67-2	octamethylcyclotetrasiloxane	0.04-0.3%

4. First aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed
No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. Fire fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 3)

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- Advice for firefighters
- Protective equipment: No special measures required.

(Contd. of page 2)

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to item 13.
- Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling Open and handle receptacle with care.
- Information about protection against explosions and fires:
Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

556-67-2 octamethylcyclotetrasiloxane

WEEL	Long-term value: 10* ppm
	*OARS WEEL

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
Product evolves methyl ethyl ketone (MEKO) when exposed to water or humid air. Provide ventilation during use.
- Personal protective equipment:
- General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

(Contd. on page 4)

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(Contd. of page 3)

- Store protective clothing separately.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Not required.

9 Physical and chemical properties

<ul style="list-style-type: none"> • Information on basic physical and chemical properties • General Information • Appearance: 	
<ul style="list-style-type: none"> Form: Color: 	<ul style="list-style-type: none"> Pasty Different according to coloring
<ul style="list-style-type: none"> • Odor: • Odor threshold: 	<ul style="list-style-type: none"> Mild Not determined.
<ul style="list-style-type: none"> • pH-value: 	<ul style="list-style-type: none"> Not applicable.
<ul style="list-style-type: none"> • Change in condition Melting point/Melting range: Boiling point/Boiling range: 	
<ul style="list-style-type: none"> • Flash point: 	<ul style="list-style-type: none"> Not applicable.
<ul style="list-style-type: none"> • Flammability (solid, gaseous): 	<ul style="list-style-type: none"> Not determined.
<ul style="list-style-type: none"> • Decomposition temperature: 	<ul style="list-style-type: none"> Not determined.
<ul style="list-style-type: none"> • Ignition temperature: 	<ul style="list-style-type: none"> Product is not selfigniting.
<ul style="list-style-type: none"> • Danger of explosion: 	<ul style="list-style-type: none"> Product does not present an explosion hazard.
<ul style="list-style-type: none"> • Explosion limits: Lower: Upper: 	
<ul style="list-style-type: none"> • Vapor pressure: 	<ul style="list-style-type: none"> Not applicable.
<ul style="list-style-type: none"> • Density: • Relative density • Vapor density 	
<ul style="list-style-type: none"> Not determined. Not determined. Not applicable. 	<ul style="list-style-type: none"> Not determined. Not determined. Not applicable.

(Contd. on page 5)

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(Contd. of page 4)

· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic: Kinematic:	Not applicable. Not applicable.
· Solvent content: VOC content:	0.00 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Carbon monoxide, carbon dioxide, silicon dioxide and formaldehyde may be formed during combustion.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	>2,000 mg/kg (rat)
------	------	--------------------

- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

(Contd. on page 6)

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**

• **PBT:**

556-67-2 | octamethylcyclotetrasiloxane

• **vPvB:**

556-67-2 | octamethylcyclotetrasiloxane

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- DOT
- IMDG, IATA

not regulated
UN3077

- UN proper shipping name
- DOT
- IMDG

not regulated
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (octamethylcyclotetrasiloxane,
dibutyltin dilaurate), MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (octamethylcyclotetrasiloxane,
dibutyltin dilaurate)

- IATA

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<ul style="list-style-type: none"> · Transport hazard class(es) · DOT · Class 	not regulated
<ul style="list-style-type: none"> · IMDG, IATA <div style="display: flex; justify-content: center; gap: 20px;">   </div> <ul style="list-style-type: none"> · Class · Label 	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> · Packing group · DOT · IMDG, IATA 	not regulated III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (IATA): 	Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code 	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OCTAMETHYLCYCLOTETRASILOXANE, DIBUTYLTIN DILAURATE), 9, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

(Contd. on page 8)

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Trade name: Novaflex MultiPurpose Series

(Contd. of page 7)

· TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	
· Hazardous Air Pollutants	
None of the ingredients is listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· Carcinogenic categories	
· EPA (Environmental Protection Agency)	
None of the ingredients is listed.	
· TLV (Threshold Limit Value)	
77-58-7 dibutyltin dilaurate	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS08 GHS09

· Signal word Warning

· Hazard-determining components of labeling:

octamethylcyclotetrasiloxane

· Hazard statements

Suspected of damaging fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

· Precautionary statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
Collect spillage.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

US

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/24/2023

Reviewed on 08/24/2023

Trade name: Novaflex MultiPurpose Series

(Contd. of page 8)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Regulatory Compliance Department
- **Contact:** novagard@novagard.net
- **Date of preparation / last revision** 08/24/2023
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - NIOSH: National Institute for Occupational Safety
 - OSHA: Occupational Safety & Health
 - TLV: Threshold Limit Value
 - PEL: Permissible Exposure Limit
 - REL: Recommended Exposure Limit
 - Toxic to Reproduction 2: Reproductive toxicity – Category 2
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- *** Data compared to the previous version altered.**

US



Nuflex® 311-RV

SECTION 1. IDENTIFICATION

Product Identifier Nuflex® 311-RV
Other Means of Identification Silicone Joint Sealant
Recommended Use Silicone sealant for weather sealing recreational vehicles.
Restrictions on Use None known.
Manufacturer NUCO Inc., 150 Curtis Dr., Guelph, Ontario, N1K 1N5, Canada, (519) 823-4994, www.sealantcentre.com
Emergency Phone No. ChemTel Chemical Expert Assistance Hotline, 1-800-255-3924
Date of Preparation May 08, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification
 Skin irritation - Category 2; Eye irritation - Category 2B; Skin sensitization - Category 1B; Carcinogenicity - Category 2

Label Elements



Signal Word:
Warning

Hazard Statement(s):
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes eye irritation.
 Suspected of causing cancer.

Precautionary Statement(s):
Prevention:
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash hands and skin thoroughly after handling.
 Wear protective gloves.

Response:
 IF ON SKIN: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice or attention.

Storage:
 Container locked up.
 Store in a well-ventilated place. Keep cool.

Disposal:
 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards
 None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Calcium carbonate	1317-65-3	15.0-40.0	Limestone	
2-Butanone, O,O',O"- (methylsilylidyne)trioxime	22984-54-9	3.0-7.0	Methyl tri (methylethylketoxi me)silane	
Silica 2482, hydrophobic	7631-86-9	3.0-7.0	Amorphous Silica	
Carbon black	1333-86-4	0.1-1.0	Carbon Black	
Titanium dioxide	13463-67-7	0.1-1.0	Titanium (IV) oxide	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Do not induce vomiting. Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Product Identifier: Nufflex® 311-RV - Ver. 1
 Date of Preparation: May 08, 2017
 Date of Last Revision: February 05, 2021

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation. Review Section 10 (Stability and Reactivity) for additional information.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures**

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Contaminated absorbent poses the same hazard as the spilled product.

Large spills or leaks: dike spilled product to prevent runoff. Dike and recover contaminated water for appropriate disposal.

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

Prevent uncontrolled release of product. Avoid repeated or prolonged skin contact. Do not get in eyes.

Conditions for Safe Storage

Store in an area that is: well-ventilated, cool, dry.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
2-Butanone, O,O',O''-(methylsilyldiylidene)trioxime	10 ppm	Not established	Not established	Not established	10 ppm	Not established

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Date of Last Revision: February 05, 2021

Silica 2482, hydrophobic	Not established	Not established	10 mg/m3	Not established	Not established	Not established
Calcium carbonate	Not established	Not established	15 mg/m3	Not established	Not established	Not established
Carbon black	3 mg/m3 A3	Not established	3.5 mg/m3	Not established	Not established	Not established
Titanium dioxide	10 mg/m3 A4	Not established	15 mg/m3	Not established	Not established	Not established

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: neoprene rubber, nitrile rubber, Silver Shield®.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	viscous paste. Particle Size: Not available
Odour	Aromatic
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Boiling Range	Not available
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	< 1 kPa
Vapour Density (air = 1)	> 1
Relative Density (water = 1)	1.12 at 25 °C (77 °F)
Solubility	Not available in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Liquid
Volatile Organic Content	28 g/L, <3% w/w (CARB Method 310)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

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Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Decomposes in the presence of heat.

Reacts in the presence of oxidizing agents.

Conditions to Avoid

High temperatures. Water, moisture or humidity. Incompatible materials.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid).

Strong acids (e.g. hydrochloric acid).

Strong bases (e.g. sodium hydroxide).

Hazardous Decomposition Products

Very toxic, flammable formaldehyde. silicon oxides calcium oxides; metal oxides. silicon oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
2-Butanone, O,O',O''-(methylsilyldiyl)trioxime		2463 mg/kg (rat)	> 2000 mg/kg (rat)
Silica 2482, hydrophobic	> 2.08 mg/L (rat) (dust)	> 3300 mg/kg (rat)	> 5000 mg/kg (rabbit)
Calcium carbonate		> 6450 mg/kg (rat)	
Carbon black	6750 mg/L (rat) (4-hour exposure)		
Titanium dioxide	> 6820 mg/kg (rat) (4-hour exposure)	> 25000 mg/kg (rat)	> 10000 mg/kg (rabbit)

Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Serious Eye Damage/Irritation

May cause very mild irritation based on information for closely related chemicals.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. May cause an allergic reaction (skin sensitization) based on information for

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closely related chemicals.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
2-Butanone, O,O',O''-(methylsilylidyne)trioxime	Not Listed	Not designated	Not Listed	Not Listed
Silica 2482, hydrophobic	Group 3	Not Listed	Not Listed	Not Listed
Calcium carbonate	Not Listed	Not designated	Not Listed	Not Listed
Carbon black	Group 2B	A3	Not Listed	Not Listed
Titanium dioxide	Group 2B	A4	Not Listed	Not Listed

May cause cancer based on animal studies. Has been associated with: liver cancer.

Key to Abbreviations

IARC = International Agency for Research on Cancer.

Group 3 = Not classifiable as to its carcinogenicity to humans. Group 2B = Possibly carcinogenic to humans.

ACGIH® = American Conference of Governmental Industrial Hygienists.

A3 = Animal carcinogen. A4 = Not classifiable as a human carcinogen.

NTP = National Toxicology Program.

OSHA = US Occupational Safety and Health Administration.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
2-Butanone, O,O',O''-(methylsilylidyne)trioxime	> 120 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water; static)	> 120 mg/L (Daphnia magna (water flea); 48-hour; fresh water; static)	> 120 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour; fresh water; static)	
Carbon black	> 1000 mg/L (96-hour)	> 5600 mg/L (Daphnia magna (water flea))		> 10000 mg/L (Desmodesmus subspicatus (algae); 72-hour; fresh water; static)
Titanium dioxide	500 mg/L (Pimephales promelas (fathead minnow); fresh water)	3 mg/L (Daphnia magna (water flea); fresh water; static)		36 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour; fresh water; static)

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Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
2-Butanone, O,O',O''-(methylsilylydine)trioxime	>= 100 mg/L (Oncorhynchus mykiss (rainbow trout); 21-day; fresh water; flow-through)		>= 100 mg/L (Daphnia magna (water flea); 21-day; fresh water; semi-static)	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose of contents and container in accordance with local, regional, national and international regulations. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.
Treat waste in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk according to International Maritime Organization Instruments

Not applicable

SECTION 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations**

None known.

Canada**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL/NDSL.

USA**Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

SARA Title III - Section 302: Not applicable.

SARA Title III - Section 311/312: Acute Health Hazard Chronic Health Hazard

SARA Title III - Section 313: Not applicable.

Pennsylvania Right To Know:

Dimethyl siloxane, hydroxy terminated

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Silicon dioxide
 Calcium Carbonate
 Methyl tri(methylethylketoxime)silane
 Carbon Black
 Titanium Dioxide
 New Jersey Right To Know:
 Dimethyl siloxane, hydroxy terminated
 Silicon dioxide
 Methyl tri(methylethylketoxime)silane
 Calcium Carbonate
 Carbon Black
 Titanium Dioxide
 California Proposition 65: Not applicable.

SECTION 16. OTHER INFORMATION

NFPA Rating	Flammability - 1	Instability - 0
SDS Prepared By	Technical Services Department	
Phone No.	(519) 823-4994	
Date of Preparation	May 08, 2017	
Date of Last Revision	February 05, 2021	
Revision Indicators	Revision 3	
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).	
Disclaimer	The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.	

Product Identifier: Nuflex® 311-RV - Ver. 1
 Date of Preparation: May 08, 2017
 Date of Last Revision: February 05, 2021



Meguiar's USA
 17991 Mitchell South
 Irvine, CA 92614
 Tel: 949-752-8000
 Fax: 949-752-5784

In case of emergency or spill, contact CHEMTREC at 800-424-9300

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: M71 - Marine Canvas Cleaner

Print date: 08/24/2005

Reference Number: TBD

Prepared Date: 07/27/2005

Use of the Substance/Preparation

Recommended use: All-purpose cleaner.

Company/Undertaking Identification

Meguiar's Holland
 Laan der Verenigde Naties 40
 33174.DA Dordrecht
 Holland
 Tel: 31-78-6210268

Meguiar's Hong Kong
 Suite 6-7, 20/F Marina House
 68 Hing Man Street
 Shaukeiwan
 Hong Kong
 Tel: 852-2967-0202

Meguiar's France
 79 avenue Edouard Vaillant
 92100 BOULOGNE
 France
 Tel: 33-1-46-10-47-81

Meguiar's UK Ltd.
 14 Cottesbrooke Park
 Heartlands
 Daventry NN11 5YL
 Tel: 0870 241 6696
 Fax: 01327 300 116

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation

Components	CAS #	% Weight	OSHA PEL TWA	EINECS No.	Classification
Linear Primary Alcohol Ethoxylate	68439-46-3	2-10	None	---	Xn; R22
Sodium Metasilicate	6834-92-0	1-5	None	229-912-9	C;R34 Xi;R37
EDTA	64-02-8	<1	None	200-573-9	Xi; R36/37/38
Sodium Carbonate	497-19-8	5-10	None	207-838-8	Xi;R36

3. HAZARDS IDENTIFICATION

Most important hazards: Causes eye irritation. This product contains chemicals listed on Canada WHMIS. See Section 15.

4. FIRST AID MEASURES

General Advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation:	Prolonged or intentional exposure to high concentrations may cause respiratory track irritation. Move to fresh air. If symptoms persist, call a physician.
Skin contact:	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	Drink plenty of water. Do not induce vomiting. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

NFPA:

Health: 2

Flammability: 0

Reactivity: 0

Suitable extinguishing media:

Use dry chemical, CO₂, water spray or alcohol-resistant foam.

Specific hazards:

Not applicable

Special protective equipment for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

Extinguishing media which must not be used for safety reasons:

Not applicable

Specific methods:

Not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental precautions:

Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up:

Wipe up with absorbent material (e.g. cloth, fleece).

7. HANDLING AND STORAGE

Handling:

Technical measures/precautions:

Not applicable.

Safe handling advice:

None under normal processing

Storage:

Store at room temperature in the original container. Do not freeze.

Incompatible products:

Do not store together with acids or oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:	Not applicable.
Respiratory protection:	Do not breathe dust or spray mist.
Skin and body protection:	Not applicable.
Eye protection:	Avoid contact with eyes. Safety glasses with side-shields
Hand protection:	Protective gloves

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance:	Liquid	Physical state:	Liquid
Color:	Clear Green	Odor:	Pleasant

Important Health Safety and Environmental Information

pH @70° F:	12.5		
Flash point:	>200 (°F), 93 (°C)	Method:	PMCC-ASTM D93-90
Boiling point/range:	212 (°F), 100 (°C)		
Water Solubility:	Soluble		
Vapor density:	H2O		
Evaporation rate:	H2O		
VOC content:	Nil		
Specific gravity:	1.03		

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Polymerization:	None under normal processing.
Conditions to avoid:	Extremes of temperature and direct sunlight
Materials to avoid:	Strong acids and oxidizing agents. Heating in air..
Hazardous decomposition products:	Not determined

11. TOXICOLOGICAL INFORMATION

Component Information

Additional Information:	The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
-------------------------	---

12. ECOLOGICAL INFORMATION

toxicity

Product Information

Aquatic toxicity: No information available

Component Information

Ecotoxicity effects: This product has no known eco-toxicological effects.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging:

Disposal must be made according to local and federal regulations.

Ewc waste disposal no:

Not applicable

Further information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

14. TRANSPORT INFORMATION

General Transportation Statement

- This product does not require classification by DOT, IATA, ICAO or IMDG.

Other information:

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

Components	TSCA	DSL/NDSL	Canada - WHMIS Classification
Linear Primary Alcohol Ethoxylate 68439-46-3	XU	Present	
Sodium Metasilicate 6834-92-0	XU	Present	
EDTA 64-02-8	Present	Present	D2B
Sodium Carbonate 497-19-8	XU	Present	D1B; E

CERCLA/SARA 313 Emission reporting

None

16. OTHER INFORMATION

Prepared by:
Literary reference:

Health & Safety
None

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

End of Safety Data Sheet

Lucas Slick Mist Interior Detailer

Safety Data Sheet Lucas

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/10/2015

Revision date: 10/19/2015

Supersedes: 08/10/2015

Version: 2.0



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Identification

Product form : Mixture
Product name : Lucas Slick Mist Interior Detailer
Product code : 10514

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Cleaning and protecting agent.

1.3. Details of the supplier of the safety data sheet

Lucas Oil Products, Inc
302 North Sheridan Street
Corona, California 92880-2067 - USA
T (951) 270-0154
F (951) 270-1902
GHewgill@lucasoil.com
www.LucasOil.com

1.4. Emergency telephone number

Emergency number : (951) 493-1149 (951) 847-5949 7:00 A.M. to 5:00 P.M. Monday thru Friday

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Sens. 1 H317 - May cause an allergic skin reaction

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US)

Warning

Hazard statements (GHS-US)

H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US)

P261 - Avoid breathing mist, spray
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, protective gloves
P302+P352 - If on skin: Wash with plenty of water
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to an authorized waste collection point

2.3. Other hazards

Other hazards not contributing to the classification

Harmful to aquatic life with long lasting effects.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Lucas Slick Mist Interior Detailer

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Diis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7	<1	Flam. Liq. 4, H227 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact

May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media

: None known.

5.2. Special hazards arising from the substance or mixture

Reactivity

: The product is non-reactive under normal conditions of use, storage and transport.

Advice for firefighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, spray.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Take up liquid spill into absorbent material.

Other information

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing mist, spray.

Hygiene measures

: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Lucas Slick Mist Interior Detailer

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in original container.
Compatible products : None known.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
Hand protection : In case of repeated or prolonged contact wear gloves, nitrile rubber gloves. Glove thickness is minimum 4 mm.
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
Color : Colorless
Odor : odorless
Odor threshold : No data available
pH : 7 - 8
Melting point : Not applicable
Freezing point : 0 °C
Boiling point : 100 °C
Flash point : > 100 °C
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : No data available
Explosive limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Vapor pressure : No data available
Relative density : No data available
Relative vapor density at 20 °C : No data available
Solubility : Material is mostly water.
Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Dermal
Acute toxicity : Not classified

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

LD50 oral rat : 2369 (2369 - 3920) mg/kg
ATE US (oral) : 2369.000 mg/kg bodyweight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified

Symptoms/injuries after skin contact : May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

LC50 fish 1 : 0.97 mg/l 96 h
EC50 Daphnia 1 : 20 mg/l 24 h

12.2. Persistence and degradability

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Biodegradation : 38 % 28 d

12.3. Bioaccumulative potential

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Log Pow : 0.37

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : None known

Effect on the global warming : None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

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SECTION 14: Transport information

Department of Transportation (DOT)
 In accordance with DOT
 Not considered a dangerous good for transport regulations

TDG
 No additional information available

Transport by sea
 No additional information available

Air transport
 No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)
 Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)
 Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
 No additional information available

International regulations

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on Taiwan National Chemical Inventory
 Listed on the Inventory of Existing Chemical Substances Produced or Imported in China (IECSC).
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
 Listed on the Korean ECL (Existing Chemicals List)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date : 10/19/2015
 Indication of changes :

2	Classification	Modified	Classification based on composition changes
3	Composition/Information on ingredients		Revised
14	Classification	Removed	Transportation classification based on composition revision

Data sources : European Chemicals Agency (ECHA) Registered Substances list.
 Internal Company test data.
 Component Supplier SDSs.

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Abbreviations and acronyms

: ATE: Acute Toxicity Estimate.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population.
SDS: Safety Data Sheet.

Full text of H-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Flam. Liq. 4	Flammable liquids Category 4
Skin Sens. 1	Skin sensitization Category 1
H227	Combustible liquid
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

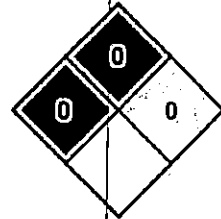
: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

SDS prepared by:

Redstone Group, LLC
77 Frantz Rd. Suite 206
Dublin, OH USA 43017
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

FETY DATA SHEET

SDS PREP DATE: 7/15/2015

SDS REVISION DATE: 6/2/2015

LCI-POWER GEAR-KWIKEE
1217 E. 7TH STREET
MISHAWAKA, IN 46544
574-258-7730

Product ID:

24 Hour Emergency - 800-940-4736 KHA

This Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community Right To Know emergency response reporting requirements under SARA TITLE III and many other laws. If you resell this product, this SDS must be given to the buyer or the information incorporated in your SDS.

Section 1: Company and Product Identification

LCI-POWER GEAR-KWIKEE
1217 E. 7TH STREET
MISHAWAKA, IN 46544
574-258-7730

24 Hour Emergency - 800-940-4736 KHA

Product ID:

Product Name: Kwiklube

Intended Use: LUBRICANT

Section 2: Hazard(s) Identification

Product Signal Word: DANGER

Physical Hazard Classification: Flammable Aerosols, Category 1

DANGER

Physical Hazard Precautionary Statements:

Extremely flammable aerosol.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Protect from sunlight.

Do not expose to temperatures exceeding 50 °C/122°F.

Health Hazard Classification(s):

Acute Toxicity - Oral - Level 5

Warning

Acute Toxicity - Dermal - Level 5

Warning

Acute Toxicity - Inhalation - Level 5

Warning

Skin Corrosion/Irritation -Level 3

Warning

Eye Damage/Irritation -Level 2A

Warning

Specific Target Organ Toxicity (Single Exposure) -

Warning

Specific Target Organ Toxicity (Repeated Exposure) -

Warning

Aspiration Hazard - Level 2

Warning

Health Hazard Statements:



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Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands and exposed areas thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Call a POISON CENTER/doctor/physician if you feel unwell.
Get medical advice/attention if you feel unwell.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local regulations.

Section 3: Product Composition

	CAS#	% Range		PEL	TLV
HYDROCARBON PROPELLANT	68476-86-8	10%	30%	NO DATA	NO DATA
PETROLEUM HYDROCARBON BASE	64741-88-4	30%	80%	NOT ESTABLISHED	NOT ESTABLISHED
ALIPHATIC HYDROCARBON *	110-54-3	1%	5%	500 PPM	50 PPM
p-Chlorobenzotrifluoride	98-56-6	10%	30%	NOT ESTABLISHED	NOT ESTABLISHED
POLYISOBUTYLENE	9003-27-4	1%	5%	NOT ESTABLISHED	NOT ESTABLISHED

Specific chemical identity and exact percentages are withheld as Trade Secret.

Section 4: First-Aid Measures

IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor/physician if you feel unwell.
Get medical advice/attention if you feel unwell.

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Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

GENERAL: This material is an aspiration hazard and defats the skin. Breathing vapors of high concentrations may cause CNS depression.

EYE CONTACT: Slightly irritating but does not injure eye tissue.

SKIN CONTACT: Low order of toxicity. Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.

INHALATION: High vapor/aerosol concentrations (greater than approximately 100 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

INGESTION: Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly minimal toxicity.

FIRST AID

EYE CONTACT: Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT: Flush with large amounts of water; use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.

INHALATION: Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

INGESTION: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

CAUTIONS

SPECIAL PRECAUTIONS: Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

PERSONAL PROTECTION: For open systems where contact is likely, wear safety glasses with side shields, long sleeves, and chemical resistant gloves. Where concentrations in air may exceed the limits, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

VENTILATION: The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated.

Section 5: Fire-Fighting Measures

FIRE AND EXPLOSION HAZARDS: This product releases Flammable Vapors at well below ambient temperatures and readily forms flammable mixtures with air exposed to an ignition source. It will burn in the open or be explosive in confined spaces. Its vapors are heavier than air and may travel long distances to a point of ignition, and then flash back. Alkaline/chlorine gas mixtures have produced explosions.

EXTINGUISHING MEDIA: Dry Chemical. CO2. Halogenated Extinguishing Agent. Stop Gas Flow.

SPECIAL FIREFIGHTING PROCEDURES: Gas fires should not be extinguished unless the gas flow can be stopped immediately. Allow the fire to burn itself out. If the source cannot be shut off immediately, all equipment and surfaces exposed to the fire should be cooled with water to prevent over-heating flash-backs, or explosions. Control fire until gas supply can be shut off. Use proper protective equipment. Use fresh air respirator when exposure to hazardous concentrations of toxic gases is possible.

FIRE FIGHTING: Use water spray to cool fire exposed surfaces and to protect personnel. Isolate "fuel" supply from fire. Use foam, dry chemical, or water spray to extinguish fire. Avoid spraying water directly into storage containers due to danger of boiling over. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

Section 6: Accidental Release Measures

STEPS TO BE TAKEN IN CASE CONTAINER IS PUNCTURED AND MATERIAL IS RELEASED:

Clean up area by mopping or with absorbent materials and place in closed container for disposal. Consult Federal, State, and local disposal authorities.

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WASTE DISPOSAL METHOD: Consult local authorities for proper waste disposal procedures. Empty de-pressurized containers can not be reused. Cans which are pressurized or contain liquid must be disposed of in a permitted waste management facility. Consult Federal, State, and local disposal authorities for approved procedures.

Section 7: Handling and Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

VENTILATION REQUIREMENT: Use adequate level exhaust ventilation. Note: Where carbon monoxide may be generated, special ventilation may be required. Local exhaust recommended when appropriate to control employee exposure.

RESPIRATORY PROTECTION: Based on contamination level and working limits of the respirator, use a respirator approved by NIOSH/MSHA.

EYES: Face shield and goggles or chemical goggles should be worn.

GLOVES: Impervious gloves should be worn. Gloves contaminated with the product should be discarded. Polyfluorinated polyethylene has been suggested.

OTHER CLOTHING EQUIPMENT: Standard work clothing. Standard work shoes; discard if shoes can not be decontaminated. Store contaminated clothing in ventilated cabinets or closed containers. Wash contaminated clothing and dry before reuse.

RESPIRATORY PROTECTION: In situations where vapor concentrations exceed the recommended exposure limits, a NIOSH approved organic vapor cartridge or air-supplying respirator should be worn.

Section 8: Exposure Control / Personal Protection

Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash hands and exposed areas thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

VENTILATION REQUIREMENT: Use adequate level exhaust ventilation. Note: Where carbon monoxide may be generated, special ventilation may be required. Local exhaust recommended when appropriate to control employee exposure.

RESPIRATORY PROTECTION: Based on contamination level and working limits of the respirator, use a respirator approved by NIOSH/MSHA.

EYES: Face shield and goggles or chemical goggles should be worn.

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Section 9: Product Properties

Flash Point (CCP): LVL 3 AEROSOL, PROPELLENT: -136°F

Boiling Point for Product: N/D

Vapor Pressure for Product: N/D

Vapor Density for Product: N/D

Specific Gravity: N/D

V.O.C.: >25% by weight

Water Solubility: NIL

Appearance: AEROSOL SPRAY

PH: N/D

Section 10: Stability and Reactivity

STABILITY: Stable

CONDITIONS TO AVOID: Temperatures above 130 degree F.

HAZARDOUS POLYMERIZATION: Will not occur

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY: Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: None

Section 11: Toxicological Information

PETROLEUM HYDROCARBON BASE STOCK 64741-88-4

Viscosity of liquid may pose a choking hazard if enters the airways. Do not induce vomiting if swallowed.

ALIPHATIC HYDROCARBON * 110-54-3

Acute oral toxicity: LD 50 Rat: 2,500 mg/kg

Acute inhalation toxicity: LC 50 Rat: 48,000 ppm, 4 hours

Acute dermal toxicity: LD 50 Rabbit: > 1,300 mg/kg

Routes of Entry: Inhalation, skin absorption, skin contact

Acute Exposure Hazards:

INHALATION HAZARD: Inhalation of vapors irritates the respiratory tract. Overexposure may cause central nervous system depression with lightheadedness, nausea, headache, and blurred vision. Greater exposure may cause muscle weakness, numbness of the extremities, unconsciousness and suffocation. Vapors can displace oxygen, especially in confined spaces.

INGESTION HAZARD: May produce gastrointestinal irritation with abdominal pain, nausea, vomiting, and diarrhea. Aspiration into lungs may cause chemical pneumonitis, which may be fatal. May cause central nervous system depression.

SKIN CONTACT HAZARD: May cause redness, irritation, dryness, cracking, and pain. Defatting or dermatitis may result from prolonged or repeated exposure. Hexane may be absorbed through the skin with possible systemic effects. There are no reports of skin sensitization through occupational exposure. Sensitization was not observed in a maximization test using 25 volunteers.

CONTACT HAZARD: Vapors cause mild irritation. Splashes may cause redness and pain.

Chronic Exposure Hazards: Repeated or prolonged skin contact may defat the skin and produce irritation and dermatitis. Prolonged exposure may cause adverse reproductive effects and visual disturbances. Chronic inhalation may cause peripheral nerve disorders and central nervous system effects. Laboratory tests have resulted in mutagenic effects. May affect the developing fetus. Chronic exposure produces peripheral neuropathy with effects

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including muscular weakness, paresthesia, numbing of the hands, feet, legs, and arms, unsteadiness, and difficulty walking and standing. Repeated exposure may cause nervous system abnormalities with muscle weakness and damage, motor incoordination, and sensation disturbances. Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

p-Chlorobenzotrifluoride 98-56-6

Acute oral toxicity: LD 50 Rat: >6,800 mg/kg

Acute inhalation toxicity: LC50 Rat: 4,479 ppm

Acute dermal toxicity: LD50 Rabbit: >2,700 mg/kg

Skin irritation: Rabbit: non-irritating

Eye irritation: Rabbit: non-irritating

A 28-day range-finding inhalation study was conducted in male and female Sprague-Dawley rats exposed to 0, 100, 250, 500, or 1000 ppm for 6 hr/day, 5 days/week. Clinical signs included increased activity at 250 ppm and above. Liver and kidney weights were increased. Microscopic changes in male kidneys stained positive for alpha-2-U globulin and the effects were considered not relevant to humans. Liver cell hypertrophy was seen at all exposures in males. Liver changes were consistent with clinical chemistry and PCBTF-blood level analysis and are believed to be an adaptive response, due to increased liver metabolism. Gavage studies in laboratory rodents for treatment periods of 14, 28, and 90 days have demonstrated significant liver and kidney toxicity at dose levels of 400 - 1000 mg/kg/day. Evidence of target organ toxicity included significant increases in relative liver and kidney weights, clinical chemistry values and histopathological findings. Renal toxicity, which occurred only in male rats, was apparently due to "hyaline droplet" nephropathy and is therefore, highly unlikely to develop in man. The NOAEL's for all these studies range from 10 to 100 mg/kg/day. CNS effects were observed in rats exposed to PCBTF at or above 2822 ppm for 4 hours. A 90 day (13 week) rat inhalation toxicity and neurobehavioral study was conducted using exposures of 6 hrs/day, 5 days/week at concentrations of 0, 10, 50 and 250 ppm. There were no PCBTF-related macroscopic observations. Microscopically, PCBTF-related centrilobular hypertrophy was present only in the livers of males and females at the high dose (250 ppm) after 13-weeks of exposure. No centrilobular hypertrophy was observed at any level among recovery animals. There were no PCBTF-related effects on the nervous system as measured by a functional observation battery, muscular activity measurements and neuropathology. A NOEL of 50 ppm was established in this study for liver hepatocyte hypertrophy in male and female rats. If the hepatocyte hypertrophy observed is considered to be an adaptive response to PCBTF, the NOAEL for this study is 250ppm.

POLYISOBUTYLENE 9003-27-4

Acute oral toxicity: LD 50: >5,000 mg/kg

Section 12: Ecological Information

ALIPHATIC HYDROCARBON * 110-54-3

Ecotoxicity: Experimental studies involving Hexane show acute aquatic toxicity values of 2.1 mg/L and greater than 1000 mg/L.

Environmental Fate: Persistence: Volatilization from soil surfaces is expected to be an important fate process. Hexane will be degraded in the atmosphere by reaction with hydroxyl radicals; the half-life of this reaction in air is estimated to be three days. Screening studies suggest that Hexane will undergo biodegradation in soil and water surfaces, but volatilization is expected to be the predominant fate process in the environment. Hydrolysis is not expected to be an important environmental fate process. Bioaccumulation: An estimated bioconcentration factor (BCF) of 2300 and log Kow of 3.9 for Hexane suggest the potential for bioconcentration in aquatic organisms is high. Metabolites may partially bioaccumulate in the lipid bilayer of fish tissues. Mobility: Hexane is highly volatile and will partition rapidly in the air. When released into water, Hexane will be lost by volatilization and biodegradation. Hexane is expected to have high mobility in soils/sediments based on a Koc of 150. Volatilization from moist soil surfaces is expected to be an important fate process based on a Henry's law constant of 1.83 atm-m³/mole. Hexane may volatilize from dry surfaces based on its vapor pressure.

p-Chlorobenzotrifluoride 98-56-6

AQUATIC ECOTOX DATA

Fish:

LC50 (96 hr.) (Rainbow trout) 13.5 mg/L

LC50 (96 hr.) (Bluegill sunfish) 12.0 mg/L

MATC (31 day) (Fathead minnow) >0.54 <1.4 mg/L*

*Triethylene glycol used as solvent carrier

BCF (48 hr.) (Bluegill sunfish) 121.8 & 202.0

Invertebrates:

LC50 (48 hr.) (Water flea) 12.4 mg/L

MATC (21 day) (Water flea) >0.03 < 0.05 mg/L*

*Acetone used as solvent carrier

Plants:

LC50 (72 hr.) (Green & Blue-green algae) 500 mg/L

TERRESTRIAL ECOTOX DATA

No data available

ENVIRONMENTAL FATE DATA

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Biotic:
 Biodegradation: inconclusive due to volatility
Abiotic:
 Atmospheric lifetime: estimated to be 65.9 days for OH radical reaction
 Log Kow 3.7
 Koc 420 - 530
 Water Sol. @ 23 C 29.1

p-Chlorobenzotrifluoride (PCBTF) will preferentially partition to the atmosphere, due to its high volatility. It has been estimated that 99.93% of a 100 Kg spill would end up in the atmosphere, while only 0.06% would partition to water (M. Garlanda, 1990). The aqueous solubility of PCBTF (29.1 mg/L) would also tend to limit its potential impact to exposed aquatic systems. PCBTF has exhibited significant toxicity to aquatic species under laboratory conditions, but is unlikely to exhibit a similar degree of acute toxicity under environmental conditions due to the aforementioned solubility and volatility issues. The moderate level of bioaccumulation measured in laboratory tests will also be subject to environmental mitigation due to PCBTF's physical/chemical properties. PCBTF should rapidly volatilize from dry and moist soils. Volatility, and relative environmental partitioning characteristics

If applicable, IARC, NTP and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III, Section 313 are identified in Section III with an "*". Additional ecological information is Not Determined.

Section 13: Disposal Information

Dispose of contents/container in accordance with local regulations.

WASTE DISPOSAL METHOD: Consult local authorities for proper waste disposal procedures. Empty de-pressurized containers can not be reused. Cans which are pressurized or contain liquid must be disposed of in a permitted waste management facility. Consult Federal, State, and local disposal authorities for approved procedures.

Section 14: Transportation Information

DOT Proper Shipping Name: UN1950

Aerosols, flammable, (each not exceeding 1L capacity) 2.1, LIMITED QUANTITY

Section 15: Regulatory Information

	CAS#	PEL	TLV
HYDROCARBON PROPELLANT	68476-86-8	NO DATA	NO DATA
PETROLEUM HYDROCARBON BASE	64741-88-4	NOT ESTABLISHED	NOT ESTABLISHED
ALIPHATIC HYDROCARBON *	110-54-3	500 PPM	50 PPM
p-Chlorobenzotrifluoride	98-56-6	NOT ESTABLISHED	NOT ESTABLISHED
POLYISOBUTYLENE	9003-27-4	NOT ESTABLISHED	NOT ESTABLISHED

Section 16: Other Information

If applicable, IARC, NTP and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III, Section 313 are identified above with

FETY DATA SHEET

SDS PREP DATE: 7/15/2015

SDS REVISION DATE: 6/2/2015

Product ID:

LCI-POWER GEAR-KWIKEE
1217 E. 7TH STREET
MISHAWAKA, IN 46544
574-258-7730

24 Hour Emergency - 800-940-4736 KHA

Consumer Product Safety Act Certificaton.

This product was evaluated by the Company listed above and is certified to be in compliance with the provisions of the Consumer Product Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act, as applicable. This product was manufactured at the location identified on the SDS. The date of manufacture is stamped on the product container. No testing is required to certify compliance with the above mentioned regulation.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

SAFETY DATA SHEET

KS0024600

Section 1. Identification

Product name : KOOL SEAL® Premium Fibered Aluminum Roof Coating (5 year)
Product code : KS0024600
Other means of identification : Not available.
CAS # : Not applicable.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : KST Coatings
A Business Unit of the Sherwin-Williams Co.
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (888) 321-5665
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), lungs) - Category 1
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 57.7%

GHS label elements

Hazard pictograms :



Signal word : Danger

Date of issue/Date of revision : 5/12/2017 Date of previous issue : 4/18/2017 Version : 6 1/14

Section 2. Hazards identification

Hazard statements	: Flammable liquid and vapor. Causes serious eye irritation. May cause cancer. May be fatal if swallowed and enters airways. May cause respiratory irritation. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), lungs)
<u>Precautionary statements</u>	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Response	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.
<u>CAS number/other identifiers</u>	

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Asphalt (Petroleum)	30.47	8052-42-4
Med. Aliphatic Hydrocarbon Solvent	27.04	64742-88-7
Stoddard Solvent	10.51	8052-41-3
Mica	9.61	12001-26-2
Heavy Aliphatic Solvent	2.49	64742-82-1
Kaolin	2.26	1332-58-7
Crystalline Silica, respirable powder	0.78	14808-60-7
Crystalline Silica, non-respirable	0.18	14808-60-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name		Exposure limits
Asphalt (Petroleum)		NIOSH REL (United States, 10/2013). CEIL: 5 mg/m ³ 15 minutes. Form: Fume
Med. Aliphatic Hydrocarbon Solvent		ACGIH TLV (United States, 3/2016). TWA: 0.5 mg/m ³ , (as benzene soluble aerosol) 8 hours. Form: Inhalable fraction
Stoddard Solvent		OSHA PEL (United States, 6/2016). TWA: 100 ppm 8 hours. TWA: 400 mg/m ³ 8 hours.
		ACGIH TLV (United States, 3/2016). TWA: 100 ppm 8 hours. TWA: 525 mg/m ³ 8 hours.
		NIOSH REL (United States, 10/2013). TWA: 350 mg/m ³ 10 hours. CEIL: 1800 mg/m ³ 15 minutes.
Mica		OSHA PEL (United States, 6/2016). TWA: 500 ppm 8 hours. TWA: 2900 mg/m ³ 8 hours.
		ACGIH TLV (United States, 3/2016). TWA: 3 mg/m ³ 8 hours. Form: Respirable fraction
		NIOSH REL (United States, 10/2013). TWA: 3 mg/m ³ 10 hours. Form: Respirable fraction
Heavy Aliphatic Solvent		OSHA PEL Z3 (United States, 6/2016). TWA: 20 mppcf 8 hours.
Kaolin		None.
		ACGIH TLV (United States, 3/2016). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction
		NIOSH REL (United States, 10/2013). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction
		TWA: 10 mg/m ³ 10 hours. Form: Total
		OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction
		TWA: 15 mg/m ³ 8 hours. Form: Total dust
Crystalline Silica, respirable powder		OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO ₂ +5) 8 hours. Form: Respirable
		TWA: 10 mg/m ³ / (%SiO ₂ +2) 8 hours. Form: Respirable
		OSHA PEL (United States, 6/2016). TWA: 50 µg/m ³ 8 hours. Form: Respirable

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Section 8. Exposure controls/personal protection

Crystalline Silica, non-respirable		dust ACGIH TLV (United States, 3/2016). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2013). TWA: 0.05 mg/m ³ 10 hours. Form: respirable dust OSHA PEL (United States, 6/2016). TWA: 50 µg/m ³ 8 hours. Form: Respirable dust OSHA PEL Z3 (United States, 6/2016). TWA: 30 mg/m ³ / (%SiO ₂ +2) 8 hours. Form: Total dust
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Occupational exposure limits (Canada)

Ingredient name		Exposure limits
Med. Aliphatic Hydrocarbon Solvent Stoddard Solvent		CA Quebec Provincial (Canada, 1/2014). TWAEV: 400 ppm 8 hours. TWAEV: 1590 mg/m ³ 8 hours. CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 572 mg/m ³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2015). TWA: 290 mg/m ³ 8 hours. STEL: 580 mg/m ³ 15 minutes. CA Ontario Provincial (Canada, 7/2015). TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 525 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.

Occupational exposure limits (Mexico)

Ingredient name		Exposure limits
Stoddard Solvent		NOM-010-STPS (Mexico, 4/2016). LMPE-PPT: 100 ppm 8 hours.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 141°C (285.8°F)
- Flash point** : Closed cup: 41°C (105.8°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 0.13 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.8%
Upper: 6%
- Vapor pressure** : 0.69 kPa (5.17 mm Hg) [at 20°C]
- Vapor density** : 5 [Air = 1]
- Relative density** : 1.01
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.

Section 9. Physical and chemical properties

Viscosity : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 23.97 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt (Petroleum)	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Stoddard Solvent	Eyes - Mild irritant	Human	-	100 parts per million	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Asphalt (Petroleum)	-	2B	-
Crystalline Silica, respirable powder	-	1	Known to be a human carcinogen.
Crystalline Silica, non-respirable	-	1	Known to be a human carcinogen.

Section 11. Toxicological information

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Stoddard Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Heavy Aliphatic Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 1	Not determined	Not determined
Stoddard Solvent	Category 1	Not determined	Not determined
Mica	Category 1	Inhalation	lungs
Heavy Aliphatic Solvent	Category 1	Not determined	central nervous system (CNS)
Kaolin	Category 1	Inhalation	lungs
Crystalline Silica, respirable powder	Category 1	Inhalation	Not determined

Aspiration hazard

Name	Result
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Stoddard Solvent	ASPIRATION HAZARD - Category 1
Heavy Aliphatic Solvent	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness.

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
 nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Heavy Aliphatic Solvent	-	10 to 2500	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.






Section 12. Ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <u>ERG No.</u> 128	- <u>ERG No.</u> 128		<u>Emergency schedules (EmS)</u> F-E, S-E

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	2
Physical hazards	1

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

	Classification	Justification
FLAMMABLE LIQUIDS - Category 3		On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A		Calculation method
CARCINOGENICITY - Category 1A		Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3		Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3		Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), lungs) - Category 1		Calculation method
ASPIRATION HAZARD - Category 1		Calculation method

History

Date of printing : 5/12/2017
: 5/12/2017

Date of issue/Date of revision : 5/12/2017 **Date of previous issue** : 4/18/2017 **Version** : 6 **13/14**

Section 16. Other information

Date of issue/Date of revision

Date of previous issue : 4/18/2017

Version : 6

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

Date of issue/Date of revision

: 5/12/2017

Date of previous issue

: 4/18/2017

Version : 6

14/14

SAFETY DATA SHEET

KS0063600

Section 1. Identification

Product name : KOOL SEAL® Premium Elastomeric Finish Coat White (10 year)

Product code : KS0063600

Other means of identification : Not available.

CAS # : Not applicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : KST Coatings
A Business Unit of the Sherwin-Williams Co.
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (888) 321-5665
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 4.2%

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May cause an allergic skin reaction.
May cause cancer.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Section 2. Hazards identification

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Titanium Dioxide	4.2	13463-67-7
1,3,5-Triazine-triethanol	0.16	4719-04-4
Crystalline Silica, respirable powder	0.13	14808-60-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.
Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Titanium Dioxide	ACGIH TLV (United States, 3/2016). TWA: 10 mg/m ³ 8 hours.
1,3,5-Triazine-triethanol	OSHA PEL (United States, 6/2016). TWA: 15 mg/m ³ 8 hours. Form: Total dust
Crystalline Silica, respirable powder	None. OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO ₂ +5) 8 hours. Form: Respirable TWA: 10 mg/m ³ / (%SiO ₂ +2) 8 hours. Form: Respirable OSHA PEL (United States, 6/2016). TWA: 50 µg/m ³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2016). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2013). TWA: 0.05 mg/m ³ 10 hours. Form: respirable dust

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
None.	

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
None.	

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 9
- Melting point** : Not available.
- Boiling point** : 100°C (212°F)
- Flash point** : Closed cup: >93.3°C (>199.9°F)
- Evaporation rate** : 0.09 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : 2.3 kPa (17.5 mm Hg) [at 20°C]
- Vapor density** : 1 [Air = 1]
- Relative density** : 1.33
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Heat of combustion** : 0.894 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,3,5-Triazine-triethanol	LD50 Oral	Rat	763 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-
Crystalline Silica, respirable powder	-	1	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
1,3,5-Triazine-triethanol Crystalline Silica, respirable powder	Category 1 Category 1	Not determined Inhalation	Not determined Not determined

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide 1,3,5-Triazine-triethanol	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
	Acute EC50 26.1 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 39 ppm Fresh water	Fish - Lepomis macrochirus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-

Date of issue/Date of revision

: 4/18/2017

Date of previous issue

: 2/1/2017

Version : 4.02

9/11

Section 14. Transport information

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	1
Flammability	0
Physical hazards	0

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method

History

Date of printing : 4/18/2017

Date of issue/Date of revision : 4/18/2017

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IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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INSTAPAK® QUICK TUFF® RT COMPONENT "B"

Version: 1

Preparation date: 2015-03-25

1. IDENTIFICATION

Product Name: INSTAPAK® QUICK TUFF® RT COMPONENT "B"
Product Code: Not Applicable
SDS#: M-68
Recommended Use: Component used for producing Instapak® polyurethane foam
Uses Advised Against: Uses other than those identified are not recommended
Manufacturer, Importer, Supplier: Sealed Air Corporation (US)
 10 Old Sherman Turnpike
 Danbury, CT 06810
 Phone: 203-791-3500
Emergency Telephone Number: Chemtrec 800-424-9300

2. HAZARD(S) IDENTIFICATION

Classification of the substance or mixture:
 Causes serious eye irritation. Category 2A

1=Highest severity 2=High severity 3=Low severity 4=Lowest severity



Signal Word: Warning

Hazard Statements: Causes serious eye irritation.

Precautionary statements: Wash hands thoroughly after handling.
 Wear eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Health hazards not otherwise classified (HHNOC) - Not applicable
Physical hazards not otherwise classified (PHNOC) - Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients:

Alcohols, C9-11, ethylated

CAS No.

Proprietary

Weight %

5-20

Exact percentages and CAS numbers are being withheld as trade secret information.
Occupational exposure limits, if available, are listed in Section 8.

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Eyes: IF IN EYES: Rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Inhalation: No specific first aid measures are required.

Ingestion: IF SWALLOWED: Call a poison center/doctor/ if you feel unwell. Rinse mouth.

Most important symptoms/effects:

Eyes: Causes serious eye irritation. Adverse symptoms may include irritation, watering, and redness.

Skin: Non-irritating to skin.

Inhalation: No information available.

Ingestion: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: No information available.

5. FIRE-FIGHTING MEASURES

Specific Methods: No special methods required.

Suitable Extinguishing Media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific Hazards: Not applicable.

Special Protective Equipment for Fire Fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

Unsuitable Extinguishing Media: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Evacuate area surrounding the spill and prevent further spillage, leakage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up: Absorb spillages onto sand, earth or any suitable absorbent material. Shovel into open-top drums, open containers or thick mil plastic bags. Wash the spillage area with water. Remove and dispose of residues. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material. Empty containers retain product residue and can be hazardous.

Storage: Store product in accordance with local regulations. Keep container tightly closed in a cool, well-ventilated place.

Aerosol Level (if applicable): Not applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Ingredient(s)	CAS#	OSHA-PEL	ACGIH-TLV
Not applicable.	--	--	--

Engineering Controls to Reduce Exposure: No special ventilation requirements. General room ventilation is adequate.

Personal Protective Equipment:

- Eye protection:** Safety glasses with side shields or goggles.
- Hand protection:** Chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves.
- Skin and body protection:** Appropriate footwear.
- Respiratory protection:** Respiratory protection should not be needed under normal use and handling conditions.
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations are close to the workstation location.

Refer to the "Instapak Quick® RT product User's Guide" before handling Instapak® chemicals for additional information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid	Flammability (solid, gas): Not available
Color: Light straw or amber	Lower and upper explosive limits: Not available
Odor: Slightly aromatic (musty)	Vapor Pressure: Not available
Odor Threshold: Not available	Vapor Density (Air = 1): >1
pH: Not available	Relative Density: 1.03 at 25°C
Melting Point/Freezing Points: -20°F (-29°C)	Solubility in Water: Soluble
Boiling/condensation point: 406°F (208°C)	Partition coefficient: n- octanol/water: Not available
Flash point: Product as supplied does not have a flash point. [Pensky-Martens Closed Cup]	Auto-Ignition temperature: Not available
Evaporation rate: Not available	Decomposition temperature: Not available
	Viscosity: Not available

16. OTHER INFORMATION

Version Number: 1

Preparation date: 2015-03-25

SDS Code: M-68

Reason for revision: Not applicable.

Prepared by: NAPCRA

Additional advice: Not applicable.

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

10. STABILITY AND REACTIVITY

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Stability: Stable at room temperature.
Possibility of Hazardous Reactions: Not applicable.
Hazardous Decomposition Products: Exposure to fire or extreme heat may generate oxides of carbon and oxides of nitrogen.
Materials to Avoid: Contact with isocyanates unless mixed at the proper ratio.
Conditions to Avoid: Not applicable.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
 Eye contact, Skin contact, Inhalation, Ingestion.

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure:

Eye Contact: Causes serious eye irritation. Adverse symptoms may include irritation, watering, and redness.
Skin Contact: Non-irritating to skin.
Inhalation: No information available.
Ingestion: No information available.
Sensitization: No information available.

Numerical measures of toxicity:
 ATE - Oral (mg/kg) Not available

Carcinogenicity:

Ingredient(s)	IARC	OSHA	NTP
Not applicable	--	--	--

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.
Persistence and Degradability: No information available.
Bioaccumulation: No information available.
Mobility in Soil: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

14. TRANSPORT INFORMATION

DOT: Not regulated.
TDG: Not regulated.
IMDG: Not regulated.
IATA: Not regulated.
DOT (Ground) Bill of Lading Description: Not regulated.
IMDG (Ocean) Bill of Lading Description: Not regulated.

15. REGULATORY INFORMATION

International Inventories at CAS# Level:

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDL).

U.S. Regulations:

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK):

Ingredient(s)	CAS#	MARTK	NJRTK	PARTK	RIRTK
Not applicable	--	--	--	--	--

15. REGULATORY INFORMATION

CERCLA/ SARA:

Ingredient(s)	CAS#	Weight %	CERCLA/SARA RQ (lbs.)	Section 302 TPQ (lbs.)	Section 313
Not applicable	--	--	--	--	--

Ingredient(s)	CAS#	CAA HAP	CAA ODS	CWA Priority Pollutants
Not applicable	--	--	--	--

SARA 311/312 Hazard Categories:

Immediate: X
 Delayed: -
 Fire: -
 Reactivity: -
 Sudden Release of Pressure: -

Canadian Regulations:

CEPA DSL: All components are listed or exempted.

16. OTHER INFORMATION

NFPA: Health: 2
 Flammability: 1
 Instability: 0
 Special Hazard: None

0=Minimal 1=Slight 2=Moderate 3=High 4=Extreme

INSTAPAK® QUICK TUFF® RT COMPONENT "A"

Version: 1

Preparation date: 2015-03-25

1. IDENTIFICATION

Product Name: INSTAPAK® QUICK TUFF® RT COMPONENT "A"
Product Code: Not Applicable
SDS#: M-67
Recommended Use: Component used for producing Instapak® polyurethane foam
Uses Advised Against: Uses other than those identified are not recommended
Manufacturer, Importer, Supplier: Sealed Air Corporation (US)
 10 Old Sherman Turnpike
 Danbury, CT 06810
 Phone: 203-791-3500
Emergency Telephone Number: Chemtrec 800-424-9300

2. HAZARD(S) IDENTIFICATION

Classification of the substance or mixture:

Acute Toxicity: Inhalation	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/ Eye Irritation	Category 2B
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Specific Target Organ Toxicity (Single Exposure) [Respiratory Tract Irritation]	Category 3

1=Highest severity 2=High severity 3=Low severity 4=Lowest severity



Signal Word: **Danger**

Hazard Statements: Harmful if inhaled.
 Causes skin and eye irritation.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction.
 May cause respiratory irritation.

Precautionary statements: Wear chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves. Wear eye or face protection. Use in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2. HAZARD(S) IDENTIFICATION

Health hazards not otherwise classified (HHNOC) - Not applicable
Physical hazards not otherwise classified (PHNOC) - Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients:	CAS No.	Weight %
Polymeric Diphenylmethane Diisocyanate (Polymeric MDI or PMDI)	9016-87-9	60-100
4,4'-Diphenylmethane diisocyanate	101-68-8	30-60

Exact percentages and CAS numbers are being withheld as trade secret information.
Occupational exposure limits, if available, are listed in Section 8.

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Eyes: IF IN EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin: IF ON SKIN: After contact with skin, wash immediately with plenty of warm soapy water: Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. An MDI study has demonstrated that a poly glycol-based skin cleanser (such as D-Tam™, PEG-400) or corn oil may be more effective than soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: IF INHALED: Move exposed person to fresh air. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel.

Ingestion: IF SWALLOWED: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water. Get medical attention if symptoms appear.

Most important symptoms/effects:

Eyes: Causes eye irritation. Adverse symptoms may include pain or irritation, watering, and redness.

Skin: Causes skin irritation. Adverse symptoms may include irritation and redness. May cause sensitization by skin contact. Animal studies have shown that respiratory sensitization can be induced by skin contact with known respiratory sensitizers including diisocyanates. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals.

Inhalation: Harmful if inhaled. May cause respiratory irritation. Adverse symptoms may include respiratory tract irritation, coughing, wheezing and breathing difficulties, and asthma. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. LC50 (rat): ca. 490 mg/m³ (4 hours): using experimentally produced respirable aerosol having aerodynamic diameter < 5 microns.

Ingestion: Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.

4. FIRST-AID MEASURES

Immediate medical attention and special treatment needed: Symptomatic and supportive therapy as indicated. Following severe exposure, medical follow-up should be monitored for at least 48 hours.

Aggravated Medical Conditions: Persons with pre-existing respiratory disorders may be more susceptible to irritating effects.

5. FIRE-FIGHTING MEASURES

Specific Methods: No special methods required.
Suitable Extinguishing Media: Foam, carbon dioxide (CO₂) or dry powder.
Specific Hazards: Containers with residual chemical may burst under intense heat or pressure. Due to reaction with water, a hazardous build-up of pressure could result if containers contaminated with moisture are sealed.

Special Protective Equipment for Fire Fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

Unsuitable Extinguishing Media: Water may be used in large quantities. Reaction between water and hot isocyanate may be vigorous. Contain run-off water with temporary barriers and keep fire exposed containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Evacuate area surrounding the spill and prevent further spillage, leakage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained. If the potential for airborne concentrations of MDI above the PEL exists, then respiratory protection should be worn (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods and materials for containment and cleaning up: Absorb spillages onto sand, earth or any suitable adsorbent material. Leave to react for at least 30 minutes. Shovel into open-top drums, open containers or thick mil plastic bags for further decontamination. Wash the spillage area with water. Neutralize small spillages with decontaminant (5-10 % sodium carbonate, 0.2-2 % liquid detergent, water to make up to 100%). Remove and dispose of residues. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not use this product. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material. Empty containers retain product residue and can be hazardous.

Storage: Store product in accordance with local regulations. Keep container tightly closed in a cool, well-ventilated place. Keep away from moisture. Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Do not reseal contaminated containers. Use appropriate containment to avoid environmental contamination.

Aerosol Level (if applicable): Not applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Ingredient(s)	CAS#	OSHA-PEL	ACGIH-TLV
4,4'-Diphenylmethane diisocyanate (MDI)	101-68-8	0.02 ppm (Ceiling)	0.005 ppm (TWA)

Engineering Controls to Reduce Exposure: Use only with adequate ventilation. Use local exhaust ventilation if necessary to maintain levels below any recommended or statutory limits. Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Personnel with a history of asthma-type conditions, bronchitis or skin sensitization conditions should not work with MDI based products. The Occupational Exposure Limits listed do not apply to previously sensitized individuals. Sensitized individuals should be removed from any further exposure.

Personal Protective Equipment:

- Eye protection:** Safety glasses with side shields or goggles.
- Hand protection:** Chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves.
- Skin and body protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed.
- Respiratory protection:** Due to the low vapor pressure of this material, the PEL is not likely to be exceeded under normal conditions. If the material is heated or spilled in a confined area, respiratory protection should be worn. An approved air purifying respirator equipped with an organic vapor cartridge and a HEPA (P100) particulate filter may be used when an appropriate cartridge change-out schedule has been developed in accordance with the OSHA respiratory protection standard (29 CFR 1910.134). Where concentrations exceed the level for which an air-purifying respirator is effective, use a positive pressure, supplied air respirator.
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations are close to the workstation location.

Refer to the "Instapak Quick® RT product User's Guide" before handling Instapak® chemicals for additional information.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|--|---|
| <p>Physical State: Liquid
 Color: Dark brown
 Odor: Slightly aromatic (musty)
 Odor Threshold: Not available
 pH: Not available
 Melting Point/Freezing Points: Not available

 Boiling/condensation point: 406°F (208°C)
 Flash point: 390°F (199°C) [Pensky-Martens Closed Cup]
 Evaporation rate: Not available</p> | <p>Flammability (solid, gas): Not available
 Lower and upper explosive limits: Not available
 Vapor Pressure: <10⁻⁵ mm Hg at 25°C (PMDI)
 Vapor Density (Air = 1): Not available
 Relative Density: 1.24 at 25°C
 Solubility in Water: Not soluble. Reacts slowly to liberate CO₂.
 Partition coefficient: n- octanol/water: Not available
 Auto-Ignition temperature: >600°C
 Decomposition temperature: Not available
 Viscosity: Not available</p> |
|--|---|

10. STABILITY AND REACTIVITY

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Stability: Stable at room temperature.

Possibility of Hazardous Reactions: Reaction with water (moisture) produces CO₂ gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. PMDI is insoluble with and heavier than water and sinks to the bottom reacting slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating CO₂ gas.

Hazardous Decomposition Products: Highly unlikely under normal industrial use. Exposure to fire or extreme heat may generate oxides of carbon, oxides of nitrogen, and traces of hydrogen cyanide.

Materials to Avoid: Water, amines, strong bases, copper alloys, acids and alcohols.

Conditions to Avoid: Avoid high temperatures.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye contact, Skin contact, Inhalation, Ingestion.

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure:

Eye Contact: Causes eye irritation. Adverse symptoms may include pain or irritation, watering, and redness.

Skin Contact: Causes skin irritation. Adverse symptoms may include irritation and redness. May cause sensitization by skin contact. Animal studies have shown that respiratory sensitization can be induced by skin contact with known respiratory sensitizers including isocyanates. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.

Inhalation: Harmful if inhaled. May cause respiratory irritation. Adverse symptoms may include respiratory tract irritation, coughing, wheezing and breathing difficulties, and asthma. This product is a respiratory irritant and potential respiratory sensitizer: repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. LC₅₀ (rat): ca. 490 mg/m³ (4 hours): using experimentally produced respirable aerosol having aerodynamic diameter <5 microns.

Ingestion: Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.

Sensitization: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Numerical measures of toxicity:

LD₅₀ Oral: >10,000 mg/kg (rat)
 LD₅₀ Dermal: >9,400 mg/kg (rabbit)
 LC₅₀ Inhalation: 0.49 mg/l (rat)
 ATE - Inhalation 1.5 mg/l
 (dusts and mists)

Carcinogenicity:

Ingredient(s)	IARC	OSHA	NTP
4,4'-Diphenylmethane diisocyanate	3*	--	--
Polymeric Diphenylmethane Diisocyanate	3*	--	--

*Not classifiable as to its carcinogenicity to humans

12. ECOLOGICAL INFORMATION

Ecotoxicity:

<u>Endpoint (Exposure)</u>	<u>Species</u>	<u>Result</u>	<u>Endpoint (Exposure)</u>	<u>Species</u>	<u>Result</u>
EC50 (72 hours)	Algae	>1640 mg/l	LC50 96 hours	Fish	>1000 mg/l
EC50 (3 hours)	Bacteria	>100 mg/l	Chronic NOEC 21 days	Daphnia	>=10 mg/l
EC50 (24 hours)	Daphnia	>1000 mg/l	Chronic NOECr 72 hours	Algae	1640 mg/l
LC0 96 hours	Fish	>1000 mg/l			

Persistence and Degradability: Not biodegradable.

Bioaccumulation: Low potential.

Mobility in Soil: By considering the production and use of the substance, it is unlikely that significant environmental exposure in the air or water will arise. Immiscible with water, but will react with water to produce inert and non-biodegradable solids.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

14. TRANSPORT INFORMATION

DOT: Single containers less than 5,000 pounds are not regulated.

TDG: Not regulated.

IMDG: Not regulated.

IATA: Not regulated.

DOT (Ground) Bill of Lading Description: Not regulated.

IMDG (Ocean) Bill of Lading Description: Not regulated.

15. REGULATORY INFORMATION

International Inventories at CAS# Level:

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDL).

U.S. Regulations:

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK):

<u>Ingredient(s)</u>	<u>CAS#</u>	<u>MARTK</u>	<u>NJRTK</u>	<u>PARTK</u>	<u>RIRTK</u>
4,4'-Diphenylmethane diisocyanate	101-68-8	X	X	X	X

15. REGULATORY INFORMATION

CERCLA/ SARA:

Ingredient(s)	CAS#	Weight %	CERCLA/SARA RQ (lbs.)	Section 302 TPQ (lbs.)	Section 313
4,4'-Diphenylmethane diisocyanate	101-68-8	36 - 42	5,000	None	Category Code N120
Polymeric Diphenylmethane Diisocyanate	9016-87-9	60-100	--	None	Category Code N120

Ingredient(s)	CAS#	CAA HAP	CAA ODS	CWA Priority Pollutants
4,4'-Diphenylmethane diisocyanate	101-68-8	X	--	--

SARA 311/312 Hazard Categories:

Immediate: X
Delayed: X
Fire: -
Reactivity: -
Sudden Release of Pressure: -

Canadian Regulations:

CEPA DSL: All components are listed or exempted.

16. OTHER INFORMATION

NFPA: Health: 2
 Flammability: 1
 Instability: 1
 Special Hazard: None

0=Minimal 1=Slight 2=Moderate 3=High 4=Extreme

Version Number: 1
Preparation date: 2015-03-25
SDS Code: M-67

Reason for revision: Not Applicable.
Prepared by: NAPCRA
Additional advice: Not applicable.

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.





SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, European Union CLP EC 1272/2008, Australian NOHSC, the Korean ISHA (Notice 2009-68), Singapore SS586 - 2: 2008 and SS 786 - 3: 2008 Standards, Chinese GB 20576 - GB 20602-2006, Japanese JIS Z7250, Taiwanese Standards and the Global Harmonization Standard, and requirements under Chemical Control Regulations of Argentina, Chile, Colombia, Costa Rica, Panama, Honduras, Venezuela, Uruguay, Peru and Paraguay.

ART I What is the material and what do I need to know in an emergency?

1. SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

TRADE NAME/IDENTIFICATION OF THE MIXTURE: K100G and K100MG

SYNONYMS:	None
CHEMICAL NAME/FAMILY:	Primary Alcohol/Aliphatic Glycol/Secondary Amine/Alkenoic Acid Mixture
RELEVANT USES of the SUBSTANCE:	Diesel Fuel Treatment
USES ADVISED AGAINST:	Other than Relevant Use
COMPANY/UNDERTAKING IDENTIFICATION:	
U.S. SUPPLIER/MANUFACTURER'S NAME:	KINETIC FUEL TECHNOLOGY, INC.
ADDRESS:	1205 Balmer Road Youngstown, NY 14174
BUSINESS PHONE/GENERAL SDS INFORMATION:	1-716-745-1461 (Monday thru Friday 8 a.m. to 5 p.m., EST)
EMERGENCY PHONE (U.S./Canada/Puerto Rico):	United States/Canada/Puerto Rico: 1-800/424-9300 (Chemtrec) [24-hrs]
EMERGENCY PHONE (OUTSIDE U.S.):	International: 01-703-527-3887 (Chemtrec) [24-hours]
WEBSITE:	www.k100fueltreatment.com

NOTE: ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations] and Global Harmonization Standard required information is included in appropriate sections based on the U.S. ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with Global Harmonization Standard under CLP Regulation (EC) 1272/2008, Japanese JIS Z7253: 2012 and Singapore Standards. For additional information on classification under (67/548/EEC), see below. For information on Korean ISHA and New Zealand HSNO classification, see below.

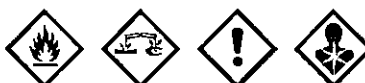
Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Skin Irritation Cat. 2, Eye Damage Cat. 1B, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3, STOT (Ingestion-Eye) SE Cat. 1

Signal Word: Danger

Hazard Statement Codes: H226, H302 + H312 + H332, H315, H318, H335, H336, H371

Precautionary Statement Codes: P210, P233, P240, P241, P242, P243, P260, P264, P270, P271, P280, P370 + P378, P303 + P361 + P353, P301 + P312, P330, P302 + P352, P332 + P313, P362 + P364, P304 + P340, P305 + P351 + P338, P310, P321, P403 + P233 + P235, P405, P501

Hazard Symbols/Pictograms: GHS02, GHS05, GHS07, GHS08



EU 67/58/EEC LABELING AND CLASSIFICATION: This substance meets the classification of hazardous, as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. This is a self-classification.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10, R20/21/22, R68/20/21/22, R41, R37/38, R67

Safety Phrases: S1/2, S8, S16, S23, S24/25, S26, S36/37/39, S45

Symbols: F, Xn/Xi



KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, NO differences in classification are applicable.

NEW ZEALAND HSNO COP 8-1 09-06: This product is an article and is not required to be classified under HSNO regulations. See Section 16 for any component-required classification.

NEW ZEALAND HAZARDOUS SUBSTANCES and NEW ORGANISMS ACT (HSNO) CHEMICAL CLASSIFICATION:

Product Group Standard: Not Otherwise Classified, Subsidiary Hazard

Classification: 3.1C: Flammable Liquids: medium hazard. 6.1D (Oral, Dermal, Inhalation): Acutely toxic. 6.3A: Irritating to the skin. 6.8B: Suspected human reproductive or developmental toxicants. 6.9A (Inhalation): Toxic to human target organs or systems. 6.9B (Oral): Harmful to human target organs or systems. 8.3A: Corrosive to ocular tissue. 9.3C: Harmful to terrestrial vertebrates.

See Section 16 for full text of Classification

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Product Description: This product is clear yellow, combustible liquid with a mild ether or sweet odor. **Health Hazards:** This product may be harmful by inhalation, ingestion or by skin absorption. Inhalation and ingestion can cause central nervous system effects. Eye contact may cause severe irritation. Skin contact, especially if prolonged, may cause dermatitis. Ingestion may result in aspiration and damage to the lungs.



2. HAZARD IDENTIFICATION (Continued)

EMERGENCY OVERVIEW (continued): Health Hazards (continued): Due to the presence of the Primary Alkyl Alcohol, severe vision effects, including increased sensitivity to light, blurred vision, and blindness may develop following an 8-24 hour symptom-free period if ingested. Vapor may produce temporary blurring of vision with a general bluish or grayish haze and the appearance of halos around lights. Components are suspect reproductive toxins.

Flammability Hazards: This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides, nitrogen oxides, ammonia, peroxides and formaldehyde).

Reactivity Hazards: This product is not reactive. **Environmental Hazards:** This product may cause harm if released to the environment. **Emergency Considerations:** Emergency responders should wear appropriate protection, including fire protective equipment for situation to which they respond.

3. COMPOSITION and INFORMATION ON INGREDIENTS

Chemical Name	CAS #	European EINECS #	Japanese MITVENC #	Korean ECL #	New Zealand NZIoC #	% w/w	LABEL ELEMENTS EU Classification (67/548/EEC) GHS & EU Classification (1272/2008) Korean ISHA Classification
Ethylene Glycol Monobutyl Ether	111-76-2	203-905-0	109 / 2-407, 2-2424	KE-04134	HSR001154	30-45%	EU 67/548 Classification: HARMFUL, IRRITANT Risk Phrase Codes: R20/21/22, R36/38 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Cat. 4, Eye Irritation Cat. 2, Skin Irritation Cat. 2 Hazard Statement Codes: H302 + H312 + H332, H319, H315
n-Butyl Alcohol	71-36-3	200-751-6	124 / 2-3049	KE-03802	HSR001096	30-40%	EU 67/548 Classification: Harmful Risk Phrase Codes: R10, R22, R37/38, R41, R67 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Eye Damage Cat. 1, Skin Irritation Cat. 2, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3 Hazard Statement Codes: H226, H302, H318, H315, H335, H336
Primary Alkyl Alcohol			Proprietary			15-20%	EU 67/548 Classification: Flammable, Toxic Risk Phrase Codes: R11, R23/24/25, R39/23,24,25 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 2, Acute Oral Toxicity Cat. 3, Acute Dermal Toxicity Cat. 3, Acute Inhalation Toxicity Cat. 3, STOT (Ingestion-Eye) SE Cat. 1 Hazard Statement Codes: H225, H301 + H311 + H331, H370
Alkenoic Acid			Proprietary			5-10%	SELF-CLASSIFICATION EU 67/548 Classification: Irritant Risk Phrase Codes: Xi GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Skin Irritation Cat. 2 Hazard Statement Codes: H315
Cyclic Secondary Amine			Proprietary			3-7%	EU 67/548 Classification: Flammable, Corrosive Risk Phrase Codes: R10, R20/21/22, R34 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Skin Corrosion Cat. 1B Hazard Statement Codes: H226, H302 + H312 + H332, H314

See Section 16 for full text of classification. See Section 15 for information on other country inventory listing of components, as applicable

PART II What should I do if a hazardous situation occurs?

4 FIRST-AID MEASURES

PROTECTION OF FIRST AID RESPONDERS: Rescuers should be taken for medical attention if necessary. Remove or cover gross contamination to avoid exposure to rescuers.

DESCRIPTION OF FIRST AID MEASURES: Persons developing hypersensitivity reactions should receive medical attention. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and SDS to physician or health professional with the contaminated individual.



4 FIRST-AID MEASURES (Continued)

DESCRIPTION OF FIRST AID MEASURES (continued):

Skin Exposure: Wash gently and thoroughly with water for 20 minutes or until chemical is removed. While under running water, remove contaminated clothing, shoes and leather goods. Seek medical attention if adverse effect persists after decontamination.

Eye Exposure: If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 20 minutes. The contaminated individual must seek medical attention if any adverse effect continues after rinsing.

Inhalation: If vapors of this product are inhaled, causing irritation, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if adverse effect continues after removal to fresh air.

Ingestion: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. Lean victim forward to avoid aspiration into the lungs if vomiting occurs naturally. If victim is convulsing, maintain an open airway and obtain immediate medical attention. If heart or breathing has stopped, trained persons should administer cardiopulmonary resuscitation (CPR) until medical personnel arrive.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory or skin conditions may be aggravated by repeated exposure to this product.

IMPORTANT SYMPTOMS AND EFFECTS: See Sections 2 (Hazard Identification) and 11 (Toxicological Information).

IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT (Cleveland open cup): 40.5°C (105°F)

AUTOIGNITION TEMPERATURE: Not established.

FLAMMABLE LIMITS (in air by volume, %): LEL: 1.1% UEL: 10.6%

FIRE EXTINGUISHING MEDIA: In the event of a fire, use suppression media for surrounding materials (e.g., water spray, dry chemical, carbon dioxide, foam, any "ABC" class extinguisher).

UNSUITABLE FIRE EXTINGUISHING MEDIA: Halons.

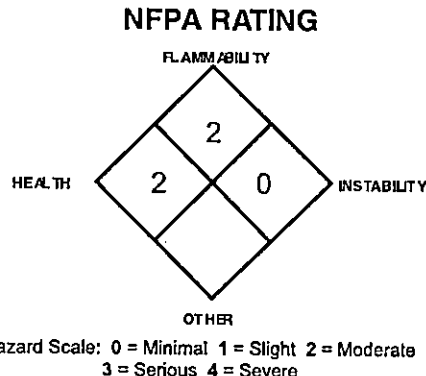
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE: This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides). Vapors can travel a long distance to an ignition source and flash back.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Vapors from this product may be ignited by static energy.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. In case fire involving large volume of product, water may be ineffective to completely extinguish fire; however, water can be used to extinguish the fire when a number of hose streams are applied by experienced firefighters to sweep the flames off the surface of the burning liquid. Water can also be applied as a fine spray to absorb the heat of the fire and to cool exposed containers and materials, and can be used to extinguish the fire when hose streams are applied by experienced firefighters trained in fighting all types of combustible liquid fires. Water can also be applied as a fine spray to absorb the heat of the fire and to cool exposed containers and materials, and can be used to extinguish the fire when hose streams are applied by experienced firefighters trained in fighting all types of combustible liquid fires. Water spray can be used to dilute spills to raise the flash point and to flush spills away from ignition sources. Solid streams of water may be ineffective and spread material. If this liquid is involved in a fire, fire runoff water should be contained to prevent possible environmental damage. If necessary, decontaminate fire-response equipment with soap and water solution.

HAZCHEM CODE (AUSTRALIA): 3Y



6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Eliminate any possible sources of ignition, and provide maximum explosion-proof ventilation. Use only non-sparking tools and equipment during the response. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666). The atmosphere must at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection.

PERSONAL PROTECTIVE EQUIPMENT: Proper protective equipment should be used. Use only non-sparking tools and equipment.

Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.

Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus.



6. ACCIDENTAL RELEASE MEASURES (Continued)

METHODS FOR CLEAN-UP AND CONTAINMENT:

Small Spills: Carefully absorb spill using polypads or other non-reactive absorbent. Place spilled material in appropriate container for disposal, sealing tightly. Remove all residue before decontamination of spill area.

Large Spills: Access to the spill area should be restricted. For large spills, dike or otherwise contain spill and absorb spill with polypads or other non-reactive absorbent material. Monitor area for combustible vapor levels.

All Spills: Place all spill residue in a double plastic bag or other containment and seal. Decontaminate the area thoroughly. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Run-off water may be contaminated by other materials and should be contained to prevent possible environmental damage.

REFERENCE TO OTHER SECTIONS: See information in Section 8 (Exposure Controls – Personal Protection) and Section 13 (Disposal Considerations) for additional information.

PART III *How can I prevent hazardous situations from occurring?*

7. HANDLING and USE

PRECAUTIONS FOR SAFE HANDLING: All employees who handle this material should be trained to handle it safely. Minimize all exposure to this substance. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing this product. Keep away from heat, sparks, and other sources of ignition. Use non-sparking tools. Bond and ground containers during transfers of material. Containers of this product must be properly labeled.

CONDITIONS FOR SAFE STORAGE: Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Storage areas should be made of fire resistant materials. **Local Fire Departments should be notified of the storage of this product on site. Storage and processing areas of this product should be identified with a NFPA 704 placard (diamond) large enough to be seen from a distance.** Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Have appropriate extinguishing equipment in the storage area (such as sprinkler systems or portable fire extinguishers). Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage.

SPECIFIC END USE(S): This product is a diesel fuel additive. Follow all industry standards for use of this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:

Ventilation and Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits provided in this section, if applicable. Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside, taking necessary precautions for environmental protection. Ensure eyewash/safety shower stations are available near where this product is used.

Occupational/Workplace Exposure Limits/Guidelines:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	OTHER
		TWA ppm	STEL ppm	TWA ppm	STEL ppm	TWA ppm	STEL ppm	IDLH ppm	
n-Butyl Alcohol	71-36-3	20	NE	100	50 (ceiling) [Vacated 1989 PEL]	NE	50 [skin] (ceiling)	1400 (based on 10% of LEL)	DFG MAKs: TWA = 100 PEAK = 1•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C Carcinogen: EPA-D

NE = Not Established. See Section 16 for Definitions of Terms Used.



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

Occupational/Workplace Exposure Limits/Guidelines (continued):

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							OTHER
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		NIOSH	
		TWA ppm	STEL ppm	TWA ppm	STEL ppm	TWA ppm	STEL ppm		
Ethylene Glycol Monobutyl Alcohol	111-76-2	20	NE	50 (skin) 25 (Vacated 1989 PEL)	300 (Vacated 1989 PEL)	5 (skin)	NE	700	DFG MAKs: TWA = 10 (sum of the concentrations of) [skin] PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C Carcinogen: EPA-CBD, EPA-C, IARC-3, MAK-4, TLV-A3
Proprietary Primary Alkyl Alcohol		200 (skin)	250 (skin)	200	250 (Vacated 1989 PEL)	200 (skin)	260 (skin)	6000	DFG MAKs: TWA = 200 (skin) PEAK = 4•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C
Proprietary Cyclic Secondary Amine		20 (skin)	NE	20 (skin)	30 (Vacated 1989 PEL)	20 (skin)	30 (skin)	1400 (based on 10% of LEL)	DFG MAKs: TWA = 10 PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: D Carcinogen: IARC-3, TLV-A4
Proprietary Alkenoic Acid		NE	NE	NE	NE	NE	NE	NE	Carcinogen: MAK-3

NE = Not Established. See Section 16 for Definitions of Terms Used.

Workplace Exposure Standards (New Zealand): None established. Refer to the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001 (Regulations 29-30).

Exposure Standards Outside the Workplace (New Zealand): Currently, there are no other exposure limits, such as TELS and EELS (See Section 12 [Ecological Information] for EEL information) established for components of this product.

Other International Exposure Limits: The following additional international exposure limits are in force some components. Exposure limits change and appropriate authorities should be in individual countries should be contacted to determine if more recent information is available.

n-BUTYL ALCOHOL:

Australia: CL = 50 ppm (152 mg/m³), JUL 2008
 Belgium: TWA = 50 ppm (154 mg/m³), Skin, MAR 2002
 Denmark: CL = 50 ppm (150 mg/m³), skin, MAY 2011
 Finland: TWA = 50 ppm (150 mg/m³), STEL = 75 ppm (230 mg/m³), skin, NOV 2011
 France: VLE = 50 ppm (150 mg/m³), FEB 2006
 Germany: MAK = 100 ppm (310 mg/m³), 2011
 Hungary: TWA = 45 mg/m³, STEL = 90 mg/m³, Skin, SEP 2000
 India: TWA = 50 ppm (150 mg/m³), Skin, JAN 1993
 Iceland: STEL = 50 ppm (150 mg/m³), skin, NOV 2011
 Japan: CL = 50 ppm (150 mg/m³), skin, MAY 2012
 Korea: CL = 50 ppm (150 mg/m³), 2006
 Mexico: Peak = 50 ppm (150 mg/m³) (skin), 2004
 New Zealand: CL = 50 ppm (150 mg/m³), skin, JAN 2002
 Norway: TWA = 25 ppm (75 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (61 mg/m³); STEL = 50 ppm (152 mg/m³), JUL 2005
 The Philippines: TWA = 100 ppm (300 mg/m³), JAN 1993
 Poland: TWA = 50 mg/m³, STEL 140 mg/m³, JAN 1999
 Russia: TWA = 10 mg/m³, STEL 30 mg/m³, JUN 2003
 Sweden: TWA = 15 ppm (45 mg/m³), CL = 30 ppm (90 mg/m³), Skin, JUN 2005
 Switzerland: CL = 50 ppm (150 mg/m³), JAN 2011
 Turkey: TWA = 100 ppm (300 mg/m³), JAN 1993
 United Kingdom: STEL = 50 ppm (154 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Korea, New Zealand, Singapore, Vietnam, check ACGIH TLV

ETHYLENE GLYCOL MONOBUTYL ETHER:

Australia: TWA = 20 ppm (96.9 mg/m³), STEL = 50 ppm (242 mg/m³), JUL 2008
 Austria: MAK-TMW 20 ppm (98 mg/m³); KZW = 40 ppm (200 mg/m³), skin, 2007
 Belgium: TWA = 20 ppm (98 mg/m³), MAR 2002
 Belgium: STEL = 50 ppm (246 mg/m³), Skin, MAR 2002
 Denmark: TWA = 20 ppm (98 mg/m³), skin, MAY 2011
 EC: TWA = 98 mg/m³ (20 ppm); STEL = 246 mg/m³ (50 ppm), skin, JUN 2000
 Finland: TWA = 20 ppm (98 mg/m³), STEL = 50 ppm (250 mg/m³), skin, NOV 2011
 France: VME = 2 ppm (9.8 mg/m³), VLE = 30 ppm (147.6 mg/m³), Skin, FEB 2006
 Germany: MAK = 10 ppm (49 mg/m³), skin, 2011
 Hungary: TWA = 98 mg/m³, STEL = 246 mg/m³, Skin, SEP 2000
 Iceland: TWA = 20 ppm (100 mg/m³), STEL = 50 ppm (246 mg/m³), skin, NOV 2011
 Korea: TWA = 25 ppm (120 mg/m³), skin, 2006

ETHYLENE GLYCOL MONOBUTYL ETHER (continued):

Mexico: TWA = 26 ppm (120 mg/m³); STEL = 75 ppm (skin), 2004
 The Netherlands: MAC-TGG = 100 mg/m³, Skin, 2003
 New Zealand: TWA = 25 ppm (121 mg/m³), skin, JAN 2002
 Norway: TWA = 20 ppm (100 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (97 mg/m³); STEL = 50 ppm (242 mg/m³), JUL 2005
 The Philippines: TWA = 50 ppm (240 mg/m³), Skin, JAN 1993
 Poland: MAC(TWA) = 100 mg/m³, MAC(STEL) = 360 mg/m³, JAN 1999
 Russia: STEL = 5 mg/m³, JUN 2003
 Sweden: TWA = 10 ppm (50 mg/m³); STEL = 20 ppm (100 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 10 ppm (49 mg/m³), KZG-W = 20 ppm (98 mg/m³), skin, JAN 2011
 Turkey: TWA = 50 ppm (240 mg/m³), JAN 1993
 United Kingdom: TWA = 25 ppm (123 mg/m³); STEL = 50 ppm (246 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV
PRIMARY ALKYL ALCOHOL:
 ARAB Republic of Egypt: TWA = 200 ppm (260 mg/m³), Skin, JAN 1993
 Australia: TWA = 200 ppm (262 mg/m³), STEL = 250 ppm (328 mg/m³), JUL 2008
 Austria: MAK-TMW = 200 ppm (260 mg/m³); KZW = 600 ppm (1040 mg/m³), skin, 2007
 Belgium: TWA = 200 ppm (266 mg/m³), MAR 2002
 Belgium: STEL = 250 ppm (333 mg/m³), Skin, MAR 2002
 Denmark: TWA = 200 ppm (260 mg/m³), skin, MAY 2011
 EC: TWA = 260 mg/m³ (200 ppm), skin, FEB 2006
 Finland: TWA = 200 ppm (270 mg/m³), STEL = 250 ppm (330 mg/m³), skin, NOV 2011
 France: VME = 200 ppm (260 mg/m³), VLE = 1000 ppm (1300 mg/m³), FEB 2006
 Germany: MAK = 200 ppm (270 mg/m³), 2011
 Hungary: TWA = 260 mg/m³, STEL 1040 mg/m³, Skin, SEP 2000
 Iceland: TWA = 200 ppm (260 mg/m³), skin, NOV 2011
 Japan: OEL = 200 ppm (260 mg/m³), skin, MAY 2012
 Korea: TWA = 200 ppm (260 mg/m³), STEL = 250 ppm (310 mg/m³), skin, 2006
 Mexico: TWA = 200 ppm (260 mg/m³); STEL = 310 mg/m³ (250 ppm), 2004
 The Netherlands: MAC-TGG = 260 mg/m³, Skin, 2003
 New Zealand: TWA = 200 ppm (262 mg/m³); STEL = 250 ppm (328 mg/m³), skin, JAN 2002
 Norway: TWA = 100 ppm (130 mg/m³), JAN 1999
 Peru: TWA = 200 ppm (262 mg/m³); STEL = 250 ppm (328 mg/m³), JUL 2005



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

International Exposure Limits (continued):

PRIMARY ALKYL ALCOHOL (continued):

The Philippines: TWA = 200 ppm (260 mg/m³), JAN 1993
 Poland: MAC(TWA) = 100 mg/m³, MAC(STEL) = 300 mg/m³, JAN 1999
 Russia: TWA = 5 mg/m³, STEL 15 mg/m³, Skin, JUN 2003
 Sweden: TWA = 200 ppm (250 mg/m³); STEL = 250 ppm (350 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 200 ppm (260 mg/m³), KZG-W = 800 ppm (1040 mg/m³), skin, JAN 2011
 Thailand: TWA = 200 ppm (260 mg/m³), JAN 1993
 Turkey: TWA = 200 ppm (260 mg/m³), JAN 1993
 United Kingdom: TWA = 200 ppm (266 mg/m³); STEL = 250 ppm (333 mg/m³), skin, OCT 2007

In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam, check ACGIH TLV

CYCLIC SECONDARY AMINE:

Australia: TWA = 20 ppm (71 mg/m³), JUL 2008
 Austria: MAK-TMW = 10 ppm (36 mg/m³); KZW = 10 ppm (36 mg/m³), skin, 2007
 Belgium: TWA = 10 ppm (36 mg/m³), MAR 2002
 Belgium: STEL = 20 ppm (72 mg/m³), Skin, MAR 2002
 Denmark: TWA = 10 ppm (36 mg/m³), skin, MAY 2011
 EC: TWA = 36 mg/m³ (10 ppm); STEL = 72 mg/m³ (20 ppm), FEB 2006
 Finland: TWA = 10 ppm (36 mg/m³), STEL = 20 ppm (72 mg/m³), skin, NOV 2011
 France: VME = 20 ppm (70 mg/m³), VLE = 30 ppm (105 mg/m³), FEB 2006

CYCLIC SECONDARY AMINE (continued):

Germany: MAK = 10 ppm (36 mg/m³), 2011
 Hungary: TWA = 70 mg/m³, STEL = 70 mg/m³, Skin, SEP 2000
 Iceland: TWA = 10 ppm (36 mg/m³), STEL = 20 ppm (72 mg/m³), skin, NOV 2011
 Korea: TWA = 20 ppm (70 mg/m³), STEL = 30 ppm (105 mg/m³), skin, 2006
 Mexico: TWA = 20 ppm (70 mg/m³); STEL = 30 ppm (skin), 2004
 The Netherlands: MAC-TGG = 36 mg/m³, Skin, 2003
 New Zealand: TWA = 20 ppm (71 mg/m³), skin, JAN 2002
 Norway: TWA = 20 ppm (70 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (71 mg/m³), JUL 2005
 The Philippines: TWA = 20 ppm (70 mg/m³), Skin, JAN 1993
 Poland: MAC(TWA) = 70 mg/m³, MAC(STEL) = 100 mg/m³, JAN 1999
 Russia: TWA = 0.5 mg/m³, STEL = 1.5 mg/m³, Skin, JUN 2003
 Sweden: TWA = 10 ppm (35 mg/m³); STEL = 15 ppm (50 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 10 ppm (36 mg/m³), KZG-W = 20 ppm (72 mg/m³), skin, JAN 2011
 United Kingdom: TWA = 10 ppm (36 mg/m³); STEL = 20 ppm (72 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Korea, New Zealand, Singapore, Vietnam check ACGIH TLV

ALKENOIC ACID:

Russia: STEL = 5 mg/m³, JUN 2003

PROTECTIVE EQUIPMENT: The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hard Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand/body protection, and CR 13464:1999 for face/eye protection), standards of Australia (including AS/NZS 1715:1994 for respiratory PPE, AS/NZS 4501.2:2006 for protective clothing, AS/NZS 2161.1:2000 for glove selection, and AS/NZS 1336:1997 for eye protection), or standards of Japan (including JIS T 8116:2005 for glove selection, JIS T 8150:2006 for respiratory PPE, JIS T 8147:2003 for eye protectors, and JIS T 8030:2005 for protective clothing). Please reference applicable regulations and standards for relevant details.

Respiratory Protection: Maintain airborne contaminant concentrations below exposure limits listed in this section, if applicable. If respiratory protection is needed, use only protection authorized in applicable regulations. Oxygen levels below 19.5% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998). For additional information, the following U.S. NIOSH recommendations for respiratory protection for the n-Butyl Alcohol, Primary Alkyl Alcohol and Ethylene Glycol Monobutyl Ether components, are provided below to assist in respiratory protection equipment.

n-BUTYL ALCOHOL

CONCENTRATION

RESPIRATORY PROTECTION

Up to 1250 ppm: Any Supplied-Air Respirator (SAR) operated in a continuous-flow mode, or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge(s).

Up to 1400 ppm: Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s), or any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any PAPR with a tight-fitting facepiece and organic vapor cartridge(s), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece, or any SAR with a full facepiece.

Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape: Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.

ETHYLENE GLYCOL MONOBUTYL ETHER

CONCENTRATION

RESPIRATORY PROTECTION

Up to 50 ppm: Any Chemical Cartridge Respirator with organic vapor cartridge(s), or any Supplied-Air Respirator (SAR).

Up to 125 ppm: Any SAR operated in a continuous-flow mode, or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge.

Up to 250 ppm: Any Chemical Cartridge Respirator with a full facepiece and organic vapor cartridge(s), or any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any PAPR with a tight-fitting facepiece and organic vapor cartridge(s), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece, or any SAR with a full facepiece.

Up to 700 ppm: Any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Emergency or Planned Entry Into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.

Escape: Any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

PROTECTIVE EQUIPMENT (continued):

Respiratory Protection (continued):

PRIMARY ALKYL ALCOHOL

CONCENTRATION **RESPIRATORY PROTECTION**

Up to 2000 ppm: Any Supplied-Air Respirator (SAR).

Up to 5000 ppm: Any SAR operated in a continuous-flow mode.

Up to 6000 ppm: Any SAR that has a tight-fitting facepiece and is operated in a continuous-flow mode, or any Self-Contained Breathing Apparatus SCBA with a full facepiece, or any SAR with a full facepiece.

Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.

Escape: Any appropriate escape-type, SCBA.

Eye Protection: Splash goggles or safety glasses. If necessary, refer to appropriate regulations.

Hand Protection: Wear gloves appropriate for use with glycol ethers and alcohols. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. If necessary, refer to appropriate regulations.

Body Protection: If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection under appropriate regulations.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Liquid.

MOLECULAR FORMULA: Mixture.

ODOR: Mild, sweet, ether-like.

0.011 ppm

BOILING POINT: 123°C (253.5°F)

EVAPORATION RATE (nBuAc = 1): 0.41

VAPOR PRESSURE (air = 1): 4.0

SPECIFIC GRAVITY @20°C (water = 1): 0.85

COEFFICIENT WATER/OIL DISTRIBUTION: Not available for product.

HOW TO DETECT THIS SUBSTANCE (identification properties): The appearance and odor of this product can be a distinguishing characteristic to identify it in event of accidental release.

COLOR: Yellowish.

MOLECULAR WEIGHT: Mixture.

ODOR THRESHOLD: For Cyclic Secondary Amine:

FREEZING/MELTING POINT: Not established.

SOLUBILITY IN WATER: 100%

VAPOR DENSITY: 2.71

pH: Not established.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: This product is stable and is not reactive.

DECOMPOSITION PRODUCTS: *Combustion:* Irritating fumes and toxic gases (e.g., carbon oxides, nitrogen oxides, ammonia, hydrogen cyanide, peroxides and formaldehyde). *Hydrolysis:* None.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This material may be incompatible with strong oxidizing agents (e.g. bromine, chlorine, chromium trioxide, nitric acid, perchlorates or sodium hypochlorite), hydrogen peroxide, metals (e.g. powdered aluminum or magnesium), carbon tetrachloride and metals (e.g. aluminum, magnesium or zinc), alkali metals (e.g. sodium or potassium), acetyl bromide, dichloromethane, perchloric acid or metal perchlorates (e.g. barium perchlorate or lead perchlorate), potassium tert-butoxide, alkylaluminum solutions, beryllium hydride, cyanuric chloride, isocyanates or phosphorus (iii) oxide (tetraphosphorus hexaoxide), diethyl zinc, mineral acids (e.g. sulfuric acid), organic acids, acid anhydrides, acid chlorides or sodium hydroxide and chloroform, cellulose nitrate, nitromethane, nitrites, nitrous acid, nitrogen oxides, aluminum, halogens (e.g. bromine or chlorine), lithium aluminum hydride, isocyanates (e.g. toluene diisocyanate, hexamethylene diisocyanate or methyl isocyanate).

POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid heat, light, and contact with incompatible chemicals.

PART IV Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of occupational exposure are expected to be by inhalation, skin and eye contact. The symptoms of exposure to this product are as follows:

Inhalation: Inhalation of mists, sprays, fumes or vapors from this product may cause central nervous system effects, including incoordination, dizziness, drowsiness, headache, nausea and vomiting. In addition, inhalation of high concentration may cause corrosive effects such as a burning sensation, sore throat, runny nose, coughing, wheezing, shortness of breath and difficulty breathing. In severe cases, potentially fatal lung injury (pulmonary edema) may result. The symptoms of pulmonary edema, such as chest pain and shortness of breath, may be delayed up to 24 hours after exposure. Due to the high level of Ethylene Glycol Monobutyl Ether, short-term exposure by inhalation may cause adverse blood system effects (red blood cell fragility, hemoglobinuria) at low concentrations, based on animal tests.

Contact with Skin or Eyes: Contact with the liquid and the eyes will cause severe irritation. Vapor contact will cause irritation, including stinging, redness and tearing. Vapor contact may also produce temporary blurring of vision with a general bluish or



grayish haze and the appearance of halos around lights. Prolonged eye contact may cause damage to tissue.



11. TOXICOLOGICAL INFORMATION (Continued)

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE (continued):

Contact with Skin or Eyes (continued): Skin contact may be irritating. Prolonged skin contact may cause defatting of the skin and dermatitis and may cause severe irritation, burns, blistering and permanent scarring.

Skin Absorption: Components of this product can be absorbed through the skin and may cause harmful effect if a large area of skin is involved or contact is prolonged. Symptoms may include adverse central nervous system effects described under 'Inhalation' and 'Ingestion' and adverse blood system effects.

Ingestion: Ingestion is not a significant route of occupational exposure. Ingestion of this product can cause adverse central nervous system effects, with symptoms such as dizziness, incoordination, drowsiness, headache, nausea and vomiting. Due to the presence of the Primary Alkyl Alcohol, severe vision effects, including increased sensitivity to light, blurred vision, and blindness may develop following an 8-24 hour symptom-free period if ingested. Due to the high level of Ethylene Glycol Monobutyl Ether, ingestion may cause adverse blood system effects (red blood cell fragility, hemoglobinuria) at low concentrations, based on animal tests. Ingestion of products containing glycol ethers may cause harm to kidneys. Aspiration into the lungs is a potential hazard after ingestion.

Injection: Though not anticipated to be a significant route of exposure for this product, injection (via punctures or lacerations by contaminated objects) may cause redness at the site of injection.

IRRITANCY OF PRODUCT: This product may mildly to moderately irritate contaminated tissue.

SENSITIZATION OF PRODUCT: No component of this product is known to cause human skin or respiratory sensitization. The Alkenoic Acid component has been shown to cause skin sensitization in a laboratory animal assay in animals.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Exposure to this product may cause the following health effects:

Acute: This product may be harmful by inhalation, ingestion or if absorbed via intact skin. Ingestion may be fatal or cause significant eye effects or blindness. Inhalation of high concentration may be fatal or may cause adverse blood effects. Eye contact may cause severe irritation. Skin contact may be irritating.

Chronic: Prolonged or chronic skin contact may cause dermatitis. Long-term occupational exposure (inhalation and dermal) to ethylene glycol ethers, including Ethylene Glycol Monobutyl Ether, may be associated with increased oxalic acid loads, which can alter kidney function and may result in kidney stones.

TARGET ORGANS:

Acute: Skin, eyes, respiratory system, central nervous system, blood, blood-forming system.

Chronic: Skin, kidneys.

TOXICITY DATA: The following toxicity data are available for components of 1% concentration or greater. Due to the large amount of data for components, only available human data, LD50 (Oral-Rat or Mouse), LD50 (Skin-Rabbit or Rat), LC50 (Inhalation-Rat or Mouse), mutation data and irritation data are provided in this SDS. Contact Kinetic Fuel Technology for information on other data available.

n-BUTYL ALCOHOL:

Standard Draize Test (Eye-Human) 50 ppm
Standard Draize Test (Eye-Human) 990 ppm/1 hour
Standard Draize Test (Skin-Human) 20 µL/20 minutes
TCLo (Inhalation-Human) 25 ppm: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Sense Organs and Special Senses (Eye): conjunctive irritation; Lungs, Thorax, or Respiration: other changes
TDLo (Eye-Human) 72.5 mg/m³: Sense Organs and Special Senses (Eye): conjunctive irritation
LDLo (Oral-Human) 428 mg/kg
Standard Draize Test (Skin-Rabbit) 20 mg/24 hours: Moderate
Standard Draize Test (Eye-Rabbit) 2 mg/24 hours: Severe
Standard Draize Test (Eye-Rabbit) 1.62 mg: Severe
Standard Draize Test (Eye-Rabbit) 0.005 mL: Severe
LD₅₀ (Oral-Rat) 790 mg/kg: Liver: fatty liver degeneration; Kidney/Ureter/Bladder: other changes; Blood: other changes
LD₅₀ (Oral-Rat) 4.36 gm/kg: Gastrointestinal: gastritis; Liver: other changes; Blood: hemorrhage
LD₅₀ (Oral-Rat) 0.79 gm/kg
LD₅₀ (Oral-Mouse) 100 mg/kg
LD₅₀ (Skin-Rabbit) 3400 mg/kg
ETHYLENE GLYCOL MONOBUTYL ETHER:
Open Irritation Test (Skin-Rabbit) 500 mg: Mild
Standard Draize Test (Eye-Rabbit) 100 mg: Severe
Standard Draize Test (Eye-Rabbit) 100 mg/24 hours: Moderate
LDLo (Oral-Human) 143 mg/kg
TDLo (Oral-Woman) 600 mg/kg: Behavioral: coma; Lungs, Thorax, or Respiration: dyspnea; Nutritional and Gross Metabolic: metabolic acidosis

ETHYLENE GLYCOL MONOBUTYL ETHER (continued):

TDLo (Oral-Woman) 7813 µL/kg: Behavioral: coma; Vascular: BP lowering not characterized in autonomic section; Nutritional and Gross Metabolic: metabolic acidosis
TCLo (Inhalation-Human) 195 ppm/8 hours: Gastrointestinal: nausea or vomiting
TCLo (Inhalation-Human) 100 ppm: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Sense Organs and Special Senses (Eye): effect, not otherwise specified; Lungs, Thorax, or Respiration: other changes
TCLo (Inhalation-Human) 1500 mg/m³: Sense Organs and Special Senses (Eye): conjunctive irritation; Liver: other changes; Kidney/Ureter/Bladder: other changes
LC₅₀ (Inhalation-Rat) 450 ppm/4 hours: Behavioral: ataxia; Nutritional and Gross Metabolic: weight loss or decreased weight gain
LC₅₀ (Inhalation-Rat) 2900 mg/m³/7 hours: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
LC₅₀ (Inhalation-Mouse) 3380 mg/m³/7 hours: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
LC₅₀ (Inhalation-Mouse) 700 ppm/7 hours: Behavioral: analgesia; Lungs, Thorax, or Respiration: dyspnea; Kidney/Ureter/Bladder: hematuria
LD₅₀ (Oral-Rat) 470 mg/kg
LD₅₀ (Oral-Rat) 917 mg/kg: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
LD₅₀ (Oral-Mouse) 1230 mg/kg: Behavioral: altered sleep time (including change in righting reflex), somnolence (general depressed activity); Skin and Appendages: hair
LD₅₀ (Oral-Mouse) 1167 mg/kg: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
LD₅₀ (Skin-Rabbit) 220 mg/kg
Mutation in Microorganisms (Bacteria-Salmonella typhimurium) 19 µmol/plate



HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE) 2*

FLAMMABILITY HAZARD (RED) 2

PHYSICAL HAZARD (YELLOW) 0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8

For Routine Industrial Use and Handling Applications

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard



11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA (continued):

PRIMARY ALKYL ALCOHOL:

TDLo (Oral-Man) 3571 µL/kg: Sense Organs and Special Senses (Eye): visual field changes; Lungs, Thorax, or Respiration: dyspnea; Blood: other changes
 TDLo (Oral-Man) 9450 µL/kg: Sense Organs and Special Senses (Eye): mydriasis (pupillary dilation); Behavioral: general anesthetic; Nutritional and Gross Metabolic: body temperature decrease
 TDLo (Oral-Man) 3429 mg/kg: Sense Organs and Special Senses (Eye): visual field changes
 TDLo (Oral-Woman) 4 gm/kg: Sense Organs and Special Senses (Eye): visual field changes; Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Oral-Man) 6422 mg/kg: Brain and Coverings: changes in circulation (hemorrhage, thrombosis, etc.); Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Oral-Woman) 10 mL/kg: Lungs, Thorax, or Respiration: respiratory depression; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects; Gastrointestinal: changes in structure or function of endocrine pancreas
 LDLo (Oral-Human) 428 mg/kg: Behavioral: headache; Lungs, Thorax, or Respiration: other changes
 LDLo (Oral-Human) 143 mg/kg: Sense Organs and Special Senses (Eye): optic nerve neuropathy; Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Unreported-Man) 868 mg/kg
 TCLo (Inhalation-Human) 86,000 mg/m³: Sense Organs and Special Senses (Eye): lacrimation; Lungs, Thorax, or Respiration: cough, other changes
 TCLo (Inhalation-Human) 300 ppm: Sense Organs and Special Senses (Eye): visual field changes; Behavioral: headache; Lungs, Thorax, or Respiration: other changes
 Standard Draize Test (Skin-Rabbit) 20 mg/24 hours: Moderate
 Standard Draize Test (Eye-Rabbit) 40 mg: Moderate
 Standard Draize Test (Eye-Rabbit) 100 mg/24 hours: Moderate
 LD₅₀ (Oral-Rat) 5600 mg/kg
 LD₅₀ (Oral-Mouse) 7300 mg/kg
 LD₅₀ (Skin-Rabbit) 15,800 mg/kg
 LC₅₀ (Inhalation-Rat) 64000 ppm/4 hours
 LC₅₀ (Inhalation-Rabbit) 81000 mg/m³/14 hours
 DNA Inhibition (Human Lymphocyte) 300 mmol/L

PRIMARY ALKYL ALCOHOL (continued):

DNA Repair (Bacteria-*Escherichia coli*) 20 mg/well
 Mutation in Microorganisms (Yeast-*Saccharomyces cerevisiae*) 12 ppb
 Mutation in Microorganisms (Mouse Lymphocyte) 7900 mg/L
 Sex Chromosome Loss and Non-Disjunction (Mold-*Aspergillus nidulans*) 56,000 ppm
 Cytogenetic Analysis (Parenteral-Grasshopper) 3000 ppm
 Cytogenetic Analysis (Oral-Mouse) 1 gm/kg
 Cytogenetic Analysis (Intraperitoneal-Mouse) 75 mg/kg
 DNA Damage (Oral-Rat) 10 µmol/kg
 Morphological Transformation (Mouse-Fibroblast) 0.01 mg/L/21 days
CYCLIC SECONDARY AMINE:
 Open Irritation Test (Skin-Rabbit) 500 mg: Moderate
 Standard Draize Test (Eye-Rabbit) 2 mg: Severe
 LC₅₀ (Inhalation-Rat) 8000 ppm/8 hours
 LC₅₀ (Inhalation-Mouse) 1320 mg/m³/2 hours: Sense Organs and Special Senses (Eye): lacrimation; Behavioral: ataxia; Lungs, Thorax, or Respiration: cyanosis
 LC₅₀ (Inhalation-Mouse) 12,000 mg/m³: Behavioral: alteration of classical conditioning
 LC₅₀ (Inhalation-Mouse) 1.35 gm/m³
 LD₅₀ (Oral-Rat) 1738 mg/kg: Kidney/Ureter/Bladder: changes in blood vessels or in circulation of kidney
 LD₅₀ (Oral-Mouse) 525 mg/kg: Behavioral: sleep, somnolence (general depressed activity)
 LD₅₀ (Oral-Mouse) 1200 mg/kg
 Morphological Transformation (Mouse-Fibroblast) 125 mg/L
 Morphological Transformation (Mouse Lymphocyte) 1 µL/L
 Mutation in Mammalian Somatic Cells (Mouse Lymphocyte) 1 gm/L
 Sister Chromatid Exchange (Hamster Ovary) 160 mg/L
 Cytogenetic Analysis (Inhalation-Rat) 0.07 mg/L/122 days-intermittent
ALKENOIC ACID:
 Standard Draize Test (Skin-Human) 15 mg/3 days-intermittent: Moderate
 Standard Draize Test (Eye-Rabbit) 100 mg: Mild
 Open Irritation Test (Skin-Rabbit) 500 mg: Mild
 LD₅₀ (Oral-Rat) 25,000 mg/kg
 LD₅₀ (Oral-Mouse) 28,000 mg/kg
 Cytogenetic Analysis (Yeast-*Saccharomyces cerevisiae*) 100 mg/L
 Cytogenetic Analysis (Hamster Fibroblast) 2500 µg/L
 Unscheduled DNA Synthesis (Rectal-Mouse) 35 mg/kg

CARCINOGENIC POTENTIAL: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

n-BUTYL ALCOHOL: EPA-D (Not Classifiable as a Human Carcinogen)

ETHYLENE GLYCOL MONOBUTYL ETHER: ACGIH TLV-A3 (Confirmed Animal Carcinogen); EPA-CBD (Cannot Be Determined); EPA-C (Possible Human Carcinogen); IARC-3 (Not Classifiable as to Carcinogenicity to Humans); MAK-4 (Substances with Carcinogenic Potential for Which Genotoxicity Plays No or at Most, a Minor Role)

CYCLIC SECONDARY AMINE: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Not Classifiable as to Carcinogenicity to Humans)

ALKENOIC ACID: MAK-3 (Substances Which Cause Concern that They Could be Carcinogenic for Man but Cannot Be Assessed Conclusively Because of Lack of Data. The classification in Category 3 is provisional.

The remaining components of this product are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on animal or human reproductive systems.

Mutagenicity: The components of this product are not reported to cause mutagenic effects in humans. There is insufficient information available to conclude that the Primary Alkyl Alcohol component is mutagenic. A positive result was obtained in a limited oral study in mice, however other oral and inhalation studies in live rats and mice have given negative results. Mostly negative results have been obtained in cultured mammalian cells, bacteria and fruit flies (*Drosophila*).

Embryotoxicity: The components of this product are not reported to cause embryotoxic effects in humans. The Primary Alkyl Alcohol component has produced fetotoxicity in rats and teratogenicity in mice exposed by inhalation to high concentrations that did not produce significant maternal toxicity. The n-Butyl Alcohol component has caused embryotoxic and teratogenic effects in animal tests, but only with maternal toxicity.

Teratogenicity: The components of this product are not reported to cause teratogenic effects in humans. The Ethylene Glycol Monobutyl Ether has caused teratogenic effects, but only with maternal toxicity.

Reproductive Toxicity: The components of this product are not reported to cause reproductive effects in humans.

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, ACGIH Biological Exposure Indices (BEIs) have been determined for some components of this product, as follows:

CHEMICAL: DETERMINANT	SAMPLING TIME	BEI
Ethylene Glycol Monobutyl Ether • Butoxyacetic Acid in urine	• End of shift.	• 200 mg/g creatine
Primary Alkyl Alcohol • Methanol in urine	• End of shift.	• 15 mg/L



12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY: This product has not been tested for mobility in soil. The following information is available for some components.

n-BUTYL ALCOHOL: The Koc of n-Butyl Alcohol is estimated as 72, using a log Kow of 0.88 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that n-Butyl Alcohol is expected to have high mobility in soil.

ETHYLENE GLYCOL MONOBUTYL ETHER: The Koc of 2-Butoxyethanol is estimated as 67, using a log Kow of 0.83 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that 2-Butoxyethanol is expected to have high mobility in soil.

PRIMARY ALKYL ALCOHOL: Using a structure estimation method based on molecular connectivity indices, the Koc for this material can be estimated to be 1. According to a classification scheme, this estimated Koc value suggests that this material is expected to have very high mobility in soil.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability. The following information is available for some components.

n-BUTYL ALCOHOL: If released to air, a vapor pressure of 7 mm Hg at 25° C indicates n-Butyl Alcohol will exist solely as a vapor in the ambient atmosphere. Vapor-phase n-Butyl Alcohol will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 46 hours. If released to soil, n-Butyl Alcohol is expected to have high mobility based upon an estimated Koc of 72. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 8.8X10⁻⁶ atm-cu m/mole. n-Butyl Alcohol may volatilize from dry soil surfaces based upon its vapor pressure. The biodegradation half-life of n-Butyl Alcohol in a sub-surface soil was approximately 7 days. If released into water, n-Butyl Alcohol is not expected to adsorb to suspended solids and sediment in water based upon the estimated Koc. Volatilization from water surfaces is expected to be an important environmental fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 2 and 29 days, respectively. In a river die-away test, n-Butyl Alcohol achieved 33% of its theoretical BOD in 5 days, suggesting biodegradation will be an important fate process in water. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental conditions.

ETHYLENE GLYCOL MONOBUTYL ETHER: If released to air, a vapor pressure of 0.88 mm Hg at 25°C indicates 2-Butoxyethanol will exist solely as a vapor in the ambient atmosphere. Vapor-phase 2-Butoxyethanol will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 16 hours. If released to soil, 2-Butoxyethanol is expected to have high mobility based upon an estimated Koc of 67. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 1.60X10⁻⁶ atm-cu m/mole. If released into water, 2-Butoxyethanol is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. 2-Butoxyethanol reached 91% of its theoretical BOD in 14 days using an activated sludge inoculum. Therefore this compound has the potential to biodegrade rapidly in water. Based upon this compound's estimated Henry's Law constant it is concluded that the volatilization of 2-Butoxyethanol from water surfaces may be an important fate process. The estimated volatilization half-lives for a model river and model lake are 25 and 185 days, respectively. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental conditions.

PRIMARY ALKYL ALCOHOL: If released to the atmosphere, a vapor pressure of 127 mm Hg at 25°C indicates that this material will exist solely in the vapor phase. Vapor phase this material is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 17 days. If released to soil, this compound is expected to have very high mobility based upon an estimated Koc of 1. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 4.55X10⁻⁶ atm-cu m/mole. This compound may also volatilize from dry soils based upon its vapor pressure. Biodegradation in soils is expected to occur rapidly based on half-lives in a sandy silt loam from Texas and a sandy loam from Mississippi of 1 and 3.2 days, respectively. If released into water, this compound is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 3 and 35 days, respectively. Biodegradation is expected to occur in natural waters since this material is degraded quickly in soils and was biodegraded rapidly in various aqueous screening tests using sewage seed or activated sludge. BCF values of less than 10, measured in fish suggests bioconcentration in aquatic organisms is low. Hydrolysis photolysis in sunlight surface waters are not expected since this compound lacks functional groups that are susceptible to hydrolysis or photolysis under environmental conditions.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. The following information is available for some components.

n-BUTYL ALCOHOL: An estimated BCF of 3 was calculated for n-Butyl Alcohol, using a log Kow of 0.88 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low. Octanol/Water Partition Coefficient: Log Kow = 0.88

ETHYLENE GLYCOL MONOBUTYL ETHER: An estimated BCF of 3 was calculated for 2-Butoxyethanol, using an estimated log Kow of 0.83 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low.

PRIMARY ALKYL ALCOHOL: Fish (golden ide) exposed to 0.05 mg/L of this material for three days in an aquatic tank had measured BCF values of less than 10. Based on a classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.

ECOTOXICITY: This product has not been tested for toxicity to aquatic or terrestrial organisms; however, all release to terrestrial, atmospheric and aquatic environments should be avoided. Release of this product to an aquatic environment may be harmful to aquatic plant and animal life in contaminated bodies of water, especially in large quantities. The following aquatic toxicity data are available for some components. Only select data are presented in this SDS. Contact Kinetic Fuel Technologies for information on other data available.

n-BUTYL ALCOHOL:

LC₅₀ (fathead minnow) 96 hours = 1,910 mg/L

LC₅₀ (*Alburnus alburnus*) 96 hours = 2,300 mg/L

LC₅₀ (*Nitocra spinipes*) 96 hours = 2,100 mg/L

ETHYLENE GLYCOL MONOBUTYL ETHER:

LC₅₀ (*Menidia beryllina* Inland silverside) 96 hours = 1250 mg/L; static

LC₅₀ (*Crangon crangon* brown shrimp) 96 hours = 775 mg/L (range: 550-950 mg/L)

LC₅₀ (*Lepomis macrochirus* Bluegill) 96 hours = 1,490 mg/L; static

LC₅₀ (*Pimephales promelas* Fathead minnow) 96 hours = 2137 mg/L

LC₅₀ (*Oncorhynchus mykiss* Rainbow trout) 96 hours = > 1000 mg/L

LC₅₀ (*Crassostrea virginica* Oyster) 96 hours = 89 mg/L

LC₅₀ (*Cyprinodon variegatus* Sheepshead minnow) 96 hours = 116 mg/L

LC₅₀ (*Artemia salina* Brine shrimp) 24 hours = 1000 mg/L

PRIMARY ALKYL ALCOHOL:

EC₅₀ (*Daphnia magna* Water flea; immobilization) 24 hours = > 10,000 mg/L

LC₅₀ (*Artemia salina* Brine shrimp, 24 hr old) 24 hours = 1578.84 mg/L

LC₅₀ (*Pimephales promelas* fathead minnows, 30 day old 0.12 g) 96 hours = 28,100 mg/L

LC₅₀ (*Oncorhynchus mykiss* Rainbow trout, 0.8 g) 96 hours = 19,000 mg/L

PRIMARY ALKYL ALCOHOL (continued):

LC₅₀ (*Lepomis macrochirus* Bluegill) 96 hours = 15,400 mg/L; flow-through

LC₅₀ (*Nitocra spinipes* Harpacticoid copepod, adult) 96 hours = 12,000 mg/L

LC₅₀ (*Alburnus alburnus* Bleak, 8 cm) 96 hours = 28,000 mg/L

LC₅₀ (*Gammarus fasciatus*) 96 hours = > 100 mg/L

LC₅₀ (*Helisoma trivolvis* aquatic mollusk) 96 hours = > 100 mg/L

LC₅₀ (*Dugesia tigrina* aquatic worm) 96 hours = > 100 mg/L

LC₅₀ (*Ceriodaphnia dubia*) 48 hours = 11 mg/L

LC₅₀ (*Lumbriculus variegatus* aquatic worm) 96 hours = > 100 mg/L

LC₅₀ (*Crangon crangon* Brown shrimp, adult) 96 hours = 1340 mg/L

LC₅₀ (*Mytilus edulis* Mussel, 5-7 cm) 96 hours = 15,900 mg/L

LC₅₀ (*Agonus cataphractus* Armed bullhead, adult) 96 hours = 7900-26,070 mg/L

CYCLIC SECONDARY AMINE:

LC₅₀ (bluegill) 96 hours = 350 mg/L

LC₅₀ (daphnia) 24 hours = 100 mg/L

EC₅₀ (*Daphnia magna*) 24 hours = 119 mg/L (immobilization)

ALKENOIC ACID:

LC₅₀ (*Pimephales promelas* Fathead minnow, juvenile 4-8 wk, length 1.1-3.1 cm) 96 hours = 205,000 µg/L

OTHER ADVERSE EFFECTS: No component of this product is known to have ozone depletion potential.

ENVIRONMENTAL EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

ENVIRONMENTAL EXPOSURE LIMITS (New Zealand): Currently, there are no EELS established for components of this product.

RESULTS OF PBT AND vPvB ASSESSMENT: No data available. PBT and vPvB assessments are part of the chemical safety report required for some substances in European Union Regulation (EC) 1907/2006, Article 14.



13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT/DISPOSAL METHODS: It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

DISPOSAL CONTAINERS: Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Wear proper protective equipment when handling waste materials.

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada. This product, if unaltered by handling, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: Wastes of this product should be tested to determine if they meet the criteria for D001 Waste Characteristic-Ignitability.

EU EWC WASTE CODE: Waste organic solvents, refrigerants and foam/aerosol propellants, other solvents and solvent mixtures: 14 06 03*

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION SHIPPING REGULATIONS: This product is classified as Dangerous Goods, per regulations of the DOT.

UN Identification Number:	UN 1993
Proper Shipping Name:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class Number and Description:	3 (Flammable)
Packing Group:	PG III
Dot Label(s) Required:	Class 3 (Flammable)
Emergency Response Guidebook Number (2012):	128
Marine Pollutant:	This compound is not specifically listed as a Marine Pollutant and does not meet the criteria of a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B).
CERCLA RQ:	5000 lb (2270 kg)

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable.

UN Identification Number:	UN 1993
Proper Shipping Name:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class Number and Description:	3 (Flammable)
Packing Group:	PG III
Hazard Label(s) Required:	Class 3 (Flammable)
Special Provisions:	16
Explosive Limit and Limited Quantity Index:	5
ERAP Index:	None
Passenger Carrying Ship Index:	None
Passenger Carrying Road or Rail Vehicle Index:	60

Marine Pollutant: This product does not meet the criteria of a Marine Pollutant under Transport Canada regulations, as per TDG 2.7.

INTERNATIONAL AIR TRANSPORT ASSOCIATION/ICAO (IATA/ICAO): This material is classified as dangerous goods, per the International Air Transport Association.

UN Identification Number:	UN 1993
Proper Shipping Name/Description:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class or Division:	3 (Flammable)
Hazard Label(s) Required:	Class 3 (Flammable)
Packing Group:	III
Excepted Quantities:	E1
Passenger and Cargo Aircraft Packing Instruction:	355
Passenger and Cargo Aircraft Packing Maximum Net Quantity per Pkg.:	60 L
Passenger and Cargo Aircraft Packing Limited Quantity Packing Instruction:	Y344
Passenger and Cargo Aircraft Packing Limited Quantity Maximum Net Quantity per Pkg.:	10 L
Cargo Aircraft Only Packing Instruction:	366
Cargo Aircraft Only Maximum Net Quantity per Pkg.:	60 L
Special Provisions:	A3
ERG Code:	3L



14. TRANSPORTATION INFORMATION (Continued)

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is classified as dangerous goods, per the International Maritime Organization.

UN No.: 1993
Proper Shipping Name: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class Number: 3
Packing Group: III
Special Provisions: 223, 274, 955
Limited Quantities: 5 L
Excepted Quantities: E1
Packing: Instructions: P001, Provisions: LP01
IBCs: Instructions: IBC03, Provisions: None
Tanks: Instructions: T4, Provisions: TP1, TP29
EmS: F-E, S-E
Stowage Category: Category A.

Marine Pollutant: This product does not meet the criteria of a Marine Pollutant under UN criteria.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is classified by the Economic Commission for Europe to be dangerous goods.

UN NO.: 1993
Name and Description: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Class: 3
Classification Code: F1
Packing Group: III
Labels: 3
Special Provisions: 274, 601, 640E
Limited Quantities: 5 L
Excepted Quantities: E1
Packing Instructions: Instructions: P001, IBC03, LP01, R001
Special Packing Provisions: None
Mixed Packing Provisions: MP19
Portable Tanks and Bulk Containers: Instructions: T4, Provisions: TP1, TP29
Hazard Identification No.: 30

AUSTRALIAN FEDERAL OFFICE OF ROAD SAFETY CODE FOR THE TRANSPORTATION OF DANGEROUS GOODS BY ROAD OR RAIL: This product is classified as dangerous goods, per regulations of the Australian Federal Office of Road Safety.

UN NO.: 1993
Name and Description: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Class or Division: 3
Packing Group: III
Special Provisions: 223, 274
Limited Quantities: 5 L
Excepted Quantities: E2
Packing Instructions: Instructions: P001, IBC03, LP01
Special Packing Provisions: None
Portable Tanks and Bulk Containers: Instructions: T4, Special Provisions: TP1, TP29
HazChem Code: 3Y

TRANSPORT IN BULK ACCORDING TO THE IBC CODE: See the information under the individual jurisdiction listings for IBC information.

ENVIRONMENTAL HAZARDS: This compound does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); and is not specifically listed in Annex III under MARPOL 73/78.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA Reporting Requirements: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows.

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
n-Butyl Alcohol	No	No	Yes
Ethylene Glycol Monobutyl Ether	No	No	Yes/N230
Methyl Alcohol	No	No	Yes



15. REGULATORY INFORMATION (Continued)

UNITED STATES REGULATIONS (continued):

U.S. SARA Threshold Planning Quantity (TPQ): There are no specific Threshold Planning Quantities for any component of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000

U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: No; FIRE: Yes; REACTIVE: No; SUDDEN RELEASE: No

U.S. CERCLA Reportable Quantities (RQ): n-Butyl Alcohol = 5000 lb (2270 kg); Primary Alkyl Alcohol = 5000 lb (2270 kg); the Ethylene Glycol Monobutyl Ether component has not been assigned a specific CERCLA RQ, but is a CERCLA Hazardous Substance.

U.S. TSCA Inventory Status: The components of this product are on the TSCA Inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component is on the California Proposition 65 lists.

CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: The components of this product are on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The components of this product are not on the CEPA Priorities Substances Lists.

Canadian WHMIS Classification and Symbols: B3: Flammable and Combustible Material: Combustible Liquid. D1A: Poisonous and Infectious Material: Immediate and Serious Effects: Toxic. D2A: Poisonous and Infectious Material: Other Effects: Very toxic. D2B: Poisonous and Infectious Material: Other Effects: Toxic, Sensitization Based on Animal Information.



ADDITIONAL EUROPEAN REGULATIONS:

Safety, Health, and Environmental Regulations/Legislation Specific for the Substance: Currently, there is no specific legislation pertaining to this product.

Chemical Safety Assessment: No data available. The chemical safety assessment is required for some substances according to European Union Regulation (EC) 1907/2006, Article 14.

ADDITIONAL AUSTRALIAN REGULATIONS:

Australian Inventory of Chemical Substances (AICS) Status: The components of this product are listed on the AICS.

Hazardous Substances Information System (HSIS): All components are listed in the HSIS, except the Alkenoic Acid component.

ADDITIONAL JAPANESE REGULATIONS:

Japanese ENCS: Components are on the ENCS Inventory, as indicated in composition tables in Section 3 (Composition and Information on Ingredients).

Japanese Ministry Of Economy, Trade, and Industry (METI) Status: The Cyclic Secondary Amine component is listed as Class I Specified Chemical Substance.

Poisonous and Deleterious Substances Control Law: The Primary Alkyl Alcohol component is listed as a Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

ADDITIONAL SINGAPORE REGULATIONS:

List of Controlled Hazardous Substances: Components are not listed on the Singapore List of Controlled Substances.

ADDITIONAL KOREAN REGULATIONS:

Korean Existing Chemical Substances Inventory Status: Components are listed on the Korean Existing Chemicals List, as indicated in composition tables in Section 3 (Composition and Information on Ingredients).

ADDITIONAL TAIWANESE REGULATIONS:

Taiwan Existing Chemical Substances Inventory Status: Components are listed on the Taiwan Existing Chemicals List.

ADDITIONAL CHINESE REGULATIONS:

Chinese Inventory of Existing Chemical Substances Status: Components are listed on the Chinese Inventory of Existing Chemical Substances (IECSC).

ADDITIONAL NEW ZEALAND REGULATIONS:

New Zealand Inventory of Chemicals (NZIoC): The components of this product are on the NZIoC.

ADDITIONAL MEXICAN REGULATIONS:

Mexican Workplace Regulations (NOM-018-STPS-2000): This product is classified as hazardous.

16. OTHER INFORMATION

U.S. ANSI LABELING (Based on 129.1, Provided to Summarize Occupational Exposure Hazards): **WARNING!** COMBUSTIBLE LIQUID AND VAPOR. CAN CAUSE ADVERSE CENTRAL NERVOUS SYSTEM EFFECTS BY INGESTION, INHALATION AND SKIN CONTACT. INGESTION AND INHALATION MAY BE FATAL. SKIN CONTACT MAY BE HARMFUL OR CAUSE IRRITATION. EYE CONTACT CAUSE SEVERE IRRITATION. INGESTION MAY CAUSE BLINDNESS OR ADVERSE BLOOD EFFECTS. ASPIRATION AFTER INGESTION MAY CAUSE PULMONARY EDEMA OR CHEMICAL PNEUMONITIS. Avoid breathing vapor. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Wear gloves, goggles, and appropriate body protection during handling. Keep away from heat, sparks and flame. Use only with adequate ventilation. Keep container closed.



16. OTHER INFORMATION (Continued)

U.S. ANSI LABELING (continued): FIRST-AID: In case of contact, immediately flush skin or eyes for at least 20 minutes with large amounts of water. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, DO NOT induce vomiting—seek immediate medical attention. IN CASE OF FIRE: Use water fog, dry chemical, CO₂, or "alcohol" foam. Do not use halons. Liquid may float and may re-ignite on the surface of water. IN CASE OF SPILL: Eliminate all sources of ignition. Use non-sparking tools. Absorb spill with inert material and place in suitable container. Place residual in appropriate container and seal. Dispose of according to applicable regulations. Consult Safety Data Sheet for additional information.

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with the GHS Standard.

Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Skin Irritation Cat. 2, Eye Irritation Cat. 2A, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3, STOT (Ingestion-Eye) SE Cat. 1

Signal Word: Danger

Hazard Statements: H226: Flammable liquid and vapor. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation. H370: Causes damage to organs (eyes) if ingested.

Precautionary Statements:

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe gas/mist/vapors/spray. P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P370 + P378: In case of fire: Use materials appropriate for surrounding fire for extinction. Do not use halons. P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P301 + P312: If swallowed, Call a POISON CENTER or doctor/physician if you feel unwell. P330: Rinse mouth. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs, get medical attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P304 + P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. P310: Immediately call a POISON CENTER or doctor. P321: Specific treatment (remove from exposure and treat symptoms).

Storage: P403 + P233 + P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool. P405: Store locked up.

Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

Hazard Symbols/Pictograms: GHS02, GHS05, GHS07, GHS08

EU 67/548/EEC LABELING AND CLASSIFICATION: This material does not have a specific classification of hazardous, as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. The following is a self-classification based on anticipated hazards.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10: Flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. R41: Risk of serious damage to eyes. R37/38: Irritating to respiratory system and skin. R67: Vapours may cause drowsiness and dizziness.

Safety Phrases: S1/2: Keep locked up and out of the reach of children. S8: Keep container tightly dry. S16: Keep away from sources of ignition - No smoking. S23: Do not breathe fumes/vapour/spray. S24/25: Avoid contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Hazard Symbols: F, Xn

KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, no differences in classification are applicable. Refer to information given under the Global Harmonization Standard Classification.

NEW ZEALAND HAZARDOUS SUBSTANCES and NEW ORGANISMS ACT (HNSO) CHEMICAL CLASSIFICATION:

The product is classified as follows under the regulation:

Classification:

- 3.1C: Flammable Liquids: medium hazard.
- 6.1D (Oral, Dermal, Inhalation): Acutely toxic.
- 6.3A: Irritating to the skin.
- 6.8B: Suspected human reproductive or developmental toxicants.
- 6.9A (Inhalation): Toxic to human target organs or systems.
- 6.9B (Oral): Harmful to human target organs or systems.
- 8.3A: Corrosive to ocular tissue.
- 9.3C: Harmful to terrestrial vertebrates.

COMPONENT CLASSIFICATION:

Labeling and Classification Full Text under GHS:

n-Butyl Alcohol: This is a published-classification.

Classification: Flammable Liquid Category 3, Acute Oral Toxicity Category 4, Eye Damage Category 1, Skin Irritation Category 2, Specific Target Organ Toxicity (Inhalation-Irritation) Single Exposure Category 3, Specific Target Organ Toxicity (Inhalation-Narcotic Effect) Single Exposure Category 3

Hazard Statements: H226: Flammable liquid and vapour. H302: Harmful if swallowed. H318: Causes serious eye damage. H315: Causes skin irritation. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness.

Ethylene Glycol Monobutyl Ether: This is a published-classification.

Classification: Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Acute Inhalation Category 4, Eye Irritation Category 2, Skin Irritation Category 2

Hazard Statements: H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H319: Causes serious eye irritation. H315: Causes skin irritation.



16. OTHER INFORMATION (Continued)

COMPONENT CLASSIFICATION (continued):

Labeling and Classification Full Text under GHS (continued):

Primary Alkyl Alcohol: This is a published-classification.

Classification: Flammable Liquid Category 2, Acute Oral Toxicity Category 3, Acute Dermal Toxicity Category 3, Acute Inhalation Toxicity Category 3, STOT (Ingestion-Eye) SE Category 1

Hazard Statements: H225: Highly flammable liquid and vapour. H301 + H311 + H331: Toxic if swallowed, in contact with skin or if inhaled. H370: Causes damage to organs.

Cyclic Secondary Amine: This is a published-classification.

Classification: Flammable Liquid Category 3, Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Acute Inhalation Toxicity Category 4, Skin Corrosion Category 1B

Hazard Statements: H226: Flammable liquid and vapour. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H314: Causes severe skin burns and eye damage.

Alkenoic Acid: This is a self-classification.

Classification: Skin Irritation Category. 2

Hazard Statements: H315: Causes skin irritation.

Labeling and Classification Full Text under EU 67/548/EEC:

n-Butyl Alcohol: This is a published-classification.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10: Flammable. R22: Harmful if swallowed. R37/38: Irritating to respiratory system and skin. R41: Limited evidence of a carcinogenic effect. R67: Vapours may cause drowsiness and dizziness.

Ethylene Glycol Monobutyl Ether: This is a published-classification.

Classification: Harmful, Irritant

Risk Phrases: R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R36/38: Irritating to eyes and skin.

Primary Alkyl Alcohol: This is a published-classification.

Classification: Flammable, Toxic

Risk Phrases: R11: Highly Flammable. R23/24/25: Toxic by inhalation, in contact with skin and if swallowed. R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Cyclic Secondary Amine: This is a published-classification.

Classification: Flammable, Harmful, Corrosive

Risk Phrases: R10: Flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R34: Causes burns.

Alkenoic Acid: This is a self-classification.

Classification: Irritant

Risk Phrases: R38:

New Zealand HSNO COP 8-1 09-06: The following are classifications under HSNO for components in pure form. These classifications do not apply to the product. Refer to Section 2 for product classification.

n-Butyl Alcohol:

3.1C: Flammable Liquids: medium hazard

6.1D (Oral): Acutely toxic

6.1E (Dermal, Inhalation): Acutely toxic.

6.3A: Irritating to the skin.

8.3A: Corrosive to ocular tissue.

9.3C: Harmful to terrestrial vertebrates

Ethylene Glycol Monobutyl Ether:

3.1D: Flammable Liquids: low hazard.

6.1D (Oral, Inhalation): Acutely toxic.

6.1D (Dermal): Acutely toxic.

6.3B: Mildly irritating to the skin.

6.4A: Irritating to the eye.

9.3C: Harmful to terrestrial vertebrates.

Primary Alkyl Alcohol:

3.1B: Flammable Liquids: High hazard.

6.1C (Oral, Dermal, Inhalation): Acutely toxic.

6.4C: Irritating to the eye.

6.8B: Suspected human reproductive or developmental toxicants.

6.9A (Inhalation): Toxic to human target organs or systems.

9.3C: Harmful to terrestrial vertebrates.

Cyclic Secondary Amine:

3.1C: Flammable Liquids: medium hazard.

6.1C (Oral, Dermal, Inhalation): Acutely toxic.

6.9A (Inhalation): Toxic to human target organs or systems.

6.9B (Oral): Harmful to human target organs or systems.

8.1A: Corrosive to metals.

8.2A: Corrosive to dermal tissue.

8.3A: Corrosive to ocular tissue.

9.1C (Fish, Crustacean, Algal): Harmful in the aquatic environment.

9.2C: Harmful in the soil environment.

9.3B: Ecotoxic to terrestrial vertebrates.

Alkenoic Acid:

6.3A: Irritating to the skin.

6.4A: Irritating to the eye.



16. OTHER INFORMATION (Continued)

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Kinetic Fuel Technology Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this product is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

REVISIONS DETAILS: May 2014: Up-date of entire SDS for compliance with additional country regulations.

REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Bridging principles were used to classify this product.

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc. • PO Box 1961, Hilo, HI 96721 • 800-441-3365 • 808-969-4846

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DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these, which are commonly used, include the following:

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:

CEILING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

DFG MAK Germ Cell Mutagen Categories: 1: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed humans. 2: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed mammals. 3A: Substances that have been shown to induce genetic damage in germ cells of human of animals, or which produce mutagenic effects in somatic cells of mammals *in vivo* and have been shown to reach the germ cells in an active form. 3B: Substances that are suspected of being germ cell mutagens because of their genotoxic effects in mammalian somatic cell *in vivo*; in exceptional cases, substances for which there are no *in vivo* data, but that are clearly mutagenic *in vitro* and structurally related to known *in vivo* mutagens. 4: Not applicable (Category 4 carcinogenic substances are those with non-genotoxic mechanisms of action. By definition, germ cell mutagens are genotoxic. Therefore, a Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA [e.g. purely aneugenic substances] if research results make this seem sensible. 5: Germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their contribution to genetic risk for humans is expected not to be significant.

DFG MAK Pregnancy Risk Group Classification: Group A: A risk of damage to the developing embryo or fetus has been unequivocally demonstrated. Exposure of pregnant women can lead to damage of the developing organism, even when MAK and BAT (Biological Tolerance Value for Working Materials) values are observed. Group B: Currently available information indicates a risk of damage to the developing embryo or fetus must be considered to be probable. Damage to the developing organism cannot be excluded when pregnant women are exposed, even when MAK and BAT values are observed. Group C: There is no reason to fear a risk of damage to the developing embryo or fetus when MAK and BAT values are observed. Group D: Classification in one of the groups A-C is not yet possible because, although the data available may indicate a trend, they are not sufficient for final evaluation.

IDLH: Immediately Dangerous to Life and Health. This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury.

LOQ: Limit of Quantitation.

MAK: Federal Republic of Germany Maximum Concentration Values in the workplace.

NE: Not Established. When no exposure guidelines are established, an entry of NE is made for reference.

NIC: Notice of Intended Change.

NIOSH CEILING: The exposure that shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, the ceiling shall be assumed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during a workday.

NIOSH RELS: NIOSH's Recommended Exposure Limits.

PEL: OSHA's Permissible Exposure Limits. This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL" is placed next to the PEL that was vacated by Court Order.

SKIN: Used when there is a danger of cutaneous absorption.

STEL: Short Term Exposure Limit, usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during a workday, even if the 8-hr TWA is within the TLV-TWA, PEL-TWA or REL-TWA.

TLV: Threshold Limit Value. An airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour.

TWA: Time Weighted Average exposure concentration for a conventional 8-hr (TLV, PEL) or up to a 10-hr (REL) workday and a 40-hr workweek.

WEEL: Workplace Environmental Exposure Limits from the AIHA.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS: This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards.

HEALTH HAZARD: 0 Minimal Hazard: No significant health risk, irritation of skin or eyes not anticipated. *Skin Irritation:* Essentially non-irritating. Mechanical irritation may occur. PII or Draize = 0. *Eye Irritation:* Essentially non-irritating, minimal effects clearing in < 24 hrs. Mechanical irritation may occur. Draize = 0. *Oral Toxicity LD₅₀ Rat:* > 5000 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 2000 mg/kg. *Inhalation Toxicity 4-hrs LC₅₀ Rat:* > 20

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 1 Slight Hazard: Minor reversible injury may occur; may irritate the stomach if swallowed; may defat the skin and exacerbate existing dermatitis. *Skin Irritation:* Slightly or mildly irritating. PII or Draize > 0 < 5. *Eye Irritation:* Slightly to mildly irritating, but reversible within 7 days. Draize > 0 ≤ 25. *Oral Toxicity LD₅₀ Rat:* > 500–5000 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 1000–2000 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 2–20 mg/L. 2 Moderate Hazard: Temporary or transitory injury may occur; prolonged exposure may affect the CNS. *Skin Irritation:* Moderately irritating; primary irritant; sensitizer. PII or Draize ≥ 5, with no destruction of dermal tissue. *Eye Irritation:* Moderately to severely irritating; reversible corneal opacity; corneal involvement or irritation clearing in 8–21 days. Draize = 26–100, with reversible effects. *Oral Toxicity LD₅₀ Rat:* > 50–500 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 200–1000 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 0.5–2 mg/L. 3 Serious Hazard: Major injury likely unless prompt action is taken and medical treatment is given; high level of toxicity; corrosive. *Skin Irritation:* Severely irritating and/or corrosive; may cause destruction of dermal tissue, skin burns, and dermal necrosis. PII or Draize > 5–8, with destruction of tissue. *Eye Irritation:* Corrosive, irreversible destruction of ocular tissue; corneal involvement or irritation persisting for more than 21 days. Draize > 80 with effects irreversible in 21 days. *Oral Toxicity LD₅₀ Rat:* > 1–50 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 20–200 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 0.05–0.5 mg/L. 4 Severe Hazard: Life-threatening; major or permanent damage may result from single or repeated exposure; extremely toxic; irreversible injury may result from brief contact. *Skin Irritation:* Not appropriate. Do not rate as a 4, based on skin irritation alone. *Eye Irritation:* Not appropriate. Do not rate as a 4, based on eye irritation alone. *Oral Toxicity LD₅₀ Rat:* ≤ 1 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* ≤ 20 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* ≤ 0.05 mg/L.

FLAMMABILITY HAZARD: 0 Minimal Hazard: Materials that will not burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes. 1 Slight Hazard: Materials that must be pre-heated before ignition can occur. Material requires considerable pre-heating, under all ambient temperature conditions before ignition and combustion can occur. This usually includes the following: Materials that will burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes or less; Liquids, solids and semisolids having a flash point at or above 93.3°C (200°F) (i.e. OSHA Class IIIB); and Most ordinary combustible materials (e.g. wood, paper, etc.). 2 Moderate Hazard: Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not, under normal conditions, form hazardous atmospheres in air, but under high ambient temperatures or moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres with air. This usually includes the following: Liquids having a flash-point at or above 37.8°C (100°F); Solid materials in the form of coarse dusts that may burn rapidly but that generally do not form explosive atmospheres; Solid materials in a fibrous or shredded form that may burn rapidly and create flash fire hazards (e.g. cotton, sisal, hemp); and Solids and semisolids (e.g. viscous and slow flowing as asphalt) that readily give off flammable vapors. 3 Serious Hazard: Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. This usually includes the following: Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 38°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (100°F) (i.e. OSHA Class IB and IC); Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air (e.g., dusts of combustible solids, mists or droplets of flammable liquids); and Materials that burn extremely rapidly, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). 4 Severe Hazard: Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air, and that will burn readily. This usually includes the following: Flammable gases; Flammable cryogenic materials; Any liquid or gaseous material that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. OSHA Class IA); and Materials that ignite spontaneously when exposed to air at a temperature of 54.4°C (130°F) or below (pyrophoric).

PHYSICAL HAZARD: 0 Water Reactivity: Materials that do not react with water. *Organic Peroxides:* Materials that are normally stable, even under fire conditions and will not react with water. *Explosives:* Substances that are Non-Explosive. *Compressed Gases:* No Rating. *Pyrophorics:* No Rating. *Oxidizers:* No 0 rating. *Unstable Reactives:* Substances that will not polymerize, decompose, condense, or self-react. 1 Water Reactivity: Materials that change or decompose upon exposure to moisture. *Organic Peroxides:* Materials that are normally stable, but can become unstable at high temperatures and pressures. These materials may react with water, but will not release energy violently. *Explosives:* Division 1.5 & 1.6 explosives. Substances that are very insensitive explosives or that do not have a mass explosion hazard. *Compressed Gases:* Pressure below OSHA definition. *Pyrophorics:* No Rating.



DEFINITION OF TERMS (Continued)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

PHYSICAL HAZARD (continued): 1 (continued): Oxidizers: Packaging Group III oxidizers; Solids: any material that in either concentration tested, exhibits a mean burning time less than or equal to the mean burning time of a 3:7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65%)/cellulose mixture and the criteria for Packing Group I and II are not met. **Unstable Reactives:** Substances that may decompose, condense, or self-react, but only under conditions of high temperature and/or pressure and have little or no potential to cause significant heat generation or explosion hazard. Substances that readily undergo hazardous polymerization in the absence of inhibitors. Substances that readily undergo hazardous polymerization in the absence of inhibitors. **2 Water Reactivity:** Materials that may react violently with water. **Organic Peroxides:** Materials that, in themselves, are normally unstable and will readily undergo violent chemical change, but will not detonate. These materials may also react violently with water. **Explosives:** Division 1.4 explosives. Explosive substances where the explosive effects are largely confined to the package and no projection of fragments of appreciable size or range are expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. **Compressed Gases:** Pressurized and meet OSHA definition but < 514.7 psi absolute at 21.1°C (70°F) [500 psig]. **Pyrophorics:** No Rating. **Oxidizers:** Packaging Group II oxidizers. Solids: any material that, either in concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 2:3 potassium bromate/cellulose mixture and the criteria for Packing Group I are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise of a 1:1 aqueous sodium chlorate solution (40%)/cellulose mixture and the criteria for Packing Group I are not met. **Reactivities:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a low potential (or low risk) for significant heat generation or explosion. Substances that readily form peroxides upon exposure to air or oxygen at room temperature. **3 Water Reactivity:** Materials that may form explosive reactions with water. **Organic Peroxides:** Materials that are capable of detonation or explosive reaction, but require a strong initiating source or must be heated under confinement before initiation; or materials that react explosively with water. **Explosives:** Division 1.3 explosives. Explosive substances that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but do not have a mass explosion hazard. **Compressed Gases:** Pressure ≥ 514.7 psi absolute at 21.1°C (70°F) [500 psig]. **Pyrophorics:** No Rating. **Oxidizers:** Packaging Group I oxidizers. Solids: any material that, in either concentration tested, exhibits a mean burning time less than the mean burning time of a 3:2 potassium bromate/cellulose mixture. Liquids: any material that spontaneously ignites when mixed with cellulose in a 1:1 ratio, or which exhibits a mean pressure rise time less than the pressure rise time of a 1:1 perchloric acid (50%)/cellulose mixture. **Unstable Reactives:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure and have a moderate potential (or moderate risk) to cause significant heat generation or explosion. **4 Water Reactivity:** Materials that react explosively with water without requiring heat or confinement. **Organic Peroxides:** Materials that are readily capable of detonation or explosive decomposition at normal temperature and pressures. **Explosives:** Division 1.1 & 1.2 explosives. Explosive substances that have a mass explosion hazard or have a projection hazard. A mass explosion is one that affects almost the entire load instantaneously. **Compressed Gases:** No Rating. **Pyrophorics:** Add to the definition of Flammability 4. **Oxidizers:** No 4 rating. **Unstable Reactives:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure and have a high potential (or high risk) to cause significant heat generation or explosion.

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

HEALTH HAZARD: 0 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 10,000 ppm. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 200 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 2000 mg/kg. Materials with an LD₅₀ for acute oral toxicity greater than 2000 mg/kg. Materials essentially non-irritating to the respiratory tract, eyes, and skin. **1** Materials that, under emergency conditions, can cause significant irritation. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 5,000 ppm but less than or equal to 10,000 ppm. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 10 mg/L but less than or equal to 200 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 1000 mg/kg but less than or equal to 2000 mg/kg. Materials that slightly to moderately irritate the respiratory tract, eyes and skin. Materials with an LD₅₀ for acute oral toxicity greater than 500 mg/kg but less than or equal to 2000 mg/kg. **2** Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 3,000 ppm but less than or equal to 5,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 5000 ppm and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 2 mg/L but less than or equal to 10 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 200 mg/kg but less than or equal to 1000 mg/kg. Compressed liquefied gases with boiling points between -30°C (-22°F) and -55°C (-66.5°F) that cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Materials that cause severe, but reversible irritation to the eyes or are lachrymators. Materials that are primary skin irritants or sensitizers. Materials whose LD₅₀ for acute oral toxicity is greater than 50 mg/kg but less than or equal to 500 mg/kg. **3** Materials that, under emergency conditions, can cause serious or permanent injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 1,000 ppm but less than or equal to 3,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 3000 ppm and that does not meet the criteria for degree of hazard 4. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 0.5 mg/L but less than or equal to 2 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 40 mg/kg but less than or equal to 200 mg/kg.

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 3 (continued): Materials that are corrosive to the respiratory tract. Materials that are corrosive to the eyes or cause irreversible corneal opacity. Materials corrosive to the skin. Cryogenic gases that cause frostbite and irreversible tissue damage. Compressed liquefied gases with boiling points below -55°C (-66.5°F) that cause frostbite and irreversible tissue damage. Materials with an LD₅₀ for acute oral toxicity greater than 5 mg/kg but less than or equal to 50 mg/kg. **4** Materials that, under emergency conditions, can be lethal. Gases with an LC₅₀ for acute inhalation toxicity less than or equal to 1,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than ten times its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 1000 ppm. Dusts and mists whose LC₅₀ for acute inhalation toxicity is less than or equal to 0.5 mg/L. Materials whose LD₅₀ for acute dermal toxicity is less than or equal to 40 mg/kg. Materials whose LD₅₀ for acute oral toxicity is less than or equal to 5 mg/kg.

FLAMMABILITY HAZARD: 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. **1** Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Materials that will burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. Liquids, solids, and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIB liquids). Liquids with a flash point greater than 35°C (95°F) that do not sustain combustion when tested using the *Method of Testing for Sustained Combustibility*, per 49 CFR 173, Appendix H or the UN *Recommendations on the Transport of Dangerous Goods, Model Regulations* (current edition) and the related *Manual of Tests and Criteria* (current edition). Liquids with a flash point greater than 35°C (95°F) in a water-miscible solution or dispersion with a water non-combustible liquid/solid content of more than 85% by weight. Liquids that have no fire point when tested by ASTM D 92, *Standard Test Method for Flash and Fire Points by Cleveland Open Cup*, up to the boiling point of the liquid or up to a temperature at which the sample being tested shows an obvious physical change. Combustible pellets with a representative diameter of greater than 2 mm (10 mesh). Most ordinary combustible materials. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. **2** Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air. Liquids having a flash point at or above 37.8°C (100°F) and below 93.4°C (200°F) (i.e. Class II and Class IIIA liquids.) Solid materials in the form of powders or coarse dusts of representative diameter between 420 microns (40 mesh) and 2 mm (10 mesh) that burn rapidly but that generally do not form explosive mixtures with air. Solid materials in fibrous or shredded form that burn rapidly and create flash fire hazards, such as cotton, sisal, and hemp. Solids and semisolids that readily give off flammable vapors. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. **3** Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures, are readily ignited under almost all conditions. Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 37.8°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (100°F) (i.e. Class IB and IC liquids). Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air. Flammable or combustible dusts with representative diameter less than 420 microns (40 mesh). Materials that burn with extreme rapidity, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. **4** Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. **INSTABILITY HAZARD: 0** Materials that in themselves are normally stable, even under fire conditions. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL. Materials that do not exhibit an exotherm at temperatures less than or equal to 500°C (932°F) when tested by differential scanning calorimetry. **1** Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 10 W/mL. **2** Materials that readily undergo violent chemical change at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/mL and below 100 W/mL. **3** Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 100 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. **4** Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater.



DEFINITION OF TERMS (Continued)

FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). **Flash Point:** Minimum temperature at which a liquid gives sufficient vapor to form an ignitable mixture with air near the surface of the liquid or within the test vessel used. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate or cause self-sustained combustion in air with no other source of ignition. **LEL:** Lowest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame. **UEL:** Highest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. **LD₅₀:** Lethal Dose (solids & liquids) that kills 50% of the exposed animals. **LC₅₀:** Lethal Concentration (gases) that kills 50% of the exposed animals. **ppm:** Concentration expressed in parts of material per million parts of air or water. **mg/m³:** Concentration expressed in weight of substance per volume of air. **mg/kg:** Quantity of material, by weight, administered to a test subject, based on their body weight in kg. **TDLo:** Lowest dose to cause a symptom. **TCLo:** Lowest concentration to cause a symptom. **TD₀, LDLo, and LDo,** or **TC, TC₀, LCLo, and LCo:** Lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** **IARC:** International Agency for Research on Cancer. **NTP:** National Toxicology Program. **RTECS:** Registry of Toxic Effects of Chemical Substances. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI:** ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV.

REPRODUCTIVE TOXICITY INFORMATION: A **mutagen** is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An **embryo toxin** is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance that interferes in any way with the reproductive process.

ECOLOGICAL INFORMATION:

EC: Effect concentration in water. **BCF:** Bioconcentration Factor, which is used to determine if a substance will concentrate in life forms that consume contaminated plant or animal matter. **TLm:** Median threshold limit. **log K_{ow}** or **log K_{oc}:** Coefficient of Oil/Water Distribution is used to assess a substance's behavior in the environment.

REGULATORY INFORMATION:

U.S.:

EPA: U.S. Environmental Protection Agency. **ACGIH:** American Conference of Governmental Industrial Hygienists, a professional association that establishes exposure limits. **OSHA:** U.S. Occupational Safety and Health Administration. **NIOSH:** National Institute of Occupational Safety and Health, which is the research arm of OSHA. **DOT:** U.S. Department of Transportation. **TC:** Transport Canada. **SARA:** Superfund Amendments and Reauthorization Act. **TSCA:** U.S. Toxic Substance Control Act. **CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollutant status according to the DOT; CERCLA or Superfund; and various state regulations. This section also includes information on the precautionary warnings that appear on the material's package label.

CANADA:

WHMIS: Canadian Workplace Hazardous Materials Information System. **TC:** Transport Canada. **DSL/NDSL:** Canadian Domestic/Non-Domestic Substances List.



SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, European Union CLP EC 1272/2008, Australian NOHSC, the Korean ISHA (Notice 2009-68), Singapore SS586 - 2: 2008 and SS 586 - 3: 2008 Standards, Chinese GB 20576 ~ GB 20602-2006, Japanese JIS Z7250, Taiwanese Standards and the Global Harmonization Standard, and requirements under Chemical Control Regulations of Argentina, Chile, Colombia, Costa Rica, Panama, Honduras, Venezuela, Uruguay, Peru and Paraguay.

PART I What is the material and what do I need to know in an emergency?

1. SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

TRADE NAME/IDENTIFICATION OF THE MIXTURE: K100D and K100MD

SYNONYMS:	None
CHEMICAL NAME/FAMILY:	Primary Alcohol/Aliphatic Glycol/Secondary Amine/Alkenoic Acid Mixture
RELEVANT USES of the SUBSTANCE:	Diesel Fuel Treatment
USES ADVISED AGAINST:	Other than Relevant Use
COMPANY/UNDERTAKING IDENTIFICATION:	
U.S. SUPPLIER/MANUFACTURER'S NAME:	KINETIC FUEL TECHNOLOGY, INC.
ADDRESS:	1205 Balmer Road Youngstown, NY 14174
BUSINESS PHONE/GENERAL SDS INFORMATION:	1-716-745-1461 (Monday thru Friday 8 a.m. to 5 p.m., EST)
EMERGENCY PHONE (U.S./Canada/Puerto Rico):	United States/Canada/Puerto Rico: 1-800/424-9300 (Chemtrec) [24-hrs]
EMERGENCY PHONE (OUTSIDE U.S.):	International: 01-703-527-3887 (Chemtrec) [24-hours]
WEBSITE:	www.k100fueltreatment.com

NOTE: ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations] and Global Harmonization Standard required information is included in appropriate sections based on the U.S. ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with Global Harmonization Standard under CLP Regulation (EC) 1272/2008, Japanese JIS Z7253: 2012 and Singapore Standards. For additional information on classification under (67/548/EEC), see below. For information on Korean ISHA and New Zealand HSNO classification, see below.

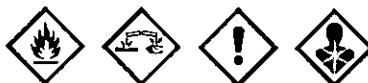
Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Skin Irritation Cat. 2, Eye Damage Cat. 1B, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3, STOT (Ingestion-Eye) SE Cat. 1

Signal Word: Danger

Hazard Statement Codes: H226, H302 + H312 + H332, H315, H318, H335, H336, H371

Precautionary Statement Codes: P210, P233, P240, P241, P242, P243, P260, P264, P270, P271, P280, P370 + P378, P303 + P361 + P353, P301 + P312, P330, P302 + P352, P332 + P313, P362 + P364, P304 + P340, P305 + P351 + P338, P310, P321, P403 + P233 + P235, P405, P501

Hazard Symbols/Pictograms: GHS02, GHS05, GHS07, GHS08



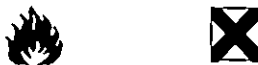
EU 67/58/EEC LABELING AND CLASSIFICATION: This substance meets the classification of hazardous, as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. This is a self-classification.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10, R20/21/22, R68/20/21/22, R41, R37/38, R67

Safety Phrases: S1/2, S8, S16, S23, S24/25, S26, S36/37/39, S45

Symbols: F, Xn/Xi



KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, NO differences in classification are applicable.

NEW ZEALAND HSNO COP 8-1 09-06: This product is an article and is not required to be classified under HSNO regulations. See Section 16 for any component-required classification.

NEW ZEALAND HAZARDOUS SUBSTANCES and NEW ORGANISMS ACT (HSNO) CHEMICAL CLASSIFICATION:

Product Group Standard: Not Otherwise Classified, Subsidiary Hazard

Classification: 3.1C: Flammable Liquids: medium hazard. 6.1D (Oral, Dermal, Inhalation): Acutely toxic. 6.3A: Irritating to the skin. 6.8B: Suspected human reproductive or developmental toxicants. 6.9A (Inhalation): Toxic to human target organs or systems. 6.9B (Oral): Harmful to human target organs or systems. 8.3A: Corrosive to ocular tissue. 9.3C: Harmful to terrestrial vertebrates.

See Section 16 for full text of Classification

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Product Description: This product is clear yellow, combustible liquid with a mild ether or sweet odor. **Health Hazards:** This product may be harmful by inhalation, ingestion or by skin absorption. Inhalation and ingestion can cause central nervous system effects. Eye contact may cause severe irritation. Skin contact, especially if prolonged, may cause dermatitis. Ingestion may result in aspiration and damage to the lungs.



2. HAZARD IDENTIFICATION (Continued)

EMERGENCY OVERVIEW (continued): Health Hazards (continued): Due to the presence of the Primary Alkyl Alcohol, severe vision effects, including increased sensitivity to light, blurred vision, and blindness may develop following an 8-24 hour symptom-free period if ingested. Vapor may produce temporary blurring of vision with a general bluish or grayish haze and the appearance of halos around lights. Components are suspect reproductive toxins.

Flammability Hazards: This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides, nitrogen oxides, ammonia, peroxides and formaldehyde).

Reactivity Hazards: This product is not reactive. **Environmental Hazards:** This product may cause harm if released to the environment. **Emergency Considerations:** Emergency responders should wear appropriate protection, including fire protective equipment for situation to which they respond.

3. COMPOSITION and INFORMATION ON INGREDIENTS

Chemical Name	CAS #	European EINECS #	Japanese MITI/ENC #	Korean ECL #	New Zealand NZIoC #	% w/w	LABEL ELEMENTS EU Classification (67/548/EEC) GHS & EU Classification (1272/2008) Korean ISHA Classification
Ethylene Glycol Monobutyl Ether	111-76-2	203-905-0	109 / 2-407, 2-2424	KE-04134	HSR001154	35-55%	EU 67/548 Classification: HARMFUL, IRRITANT Risk Phrase Codes: R20/21/22, R36/38 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Cat. 4, Eye Irritation Cat. 2, Skin Irritation Cat. 2 Hazard Statement Codes: H302 + H312 + H332, H319, H315
n-Butyl Alcohol	71-36-3	200-751-6	124 / 2-3049	KE-03802	HSR001096	20-30%	EU 67/548 Classification: Harmful Risk Phrase Codes: R10, R22, R37/38, R41, R67 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Eye Damage Cat. 1, Skin Irritation Cat. 2, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3 Hazard Statement Codes: H226, H302, H318, H315, H335, H336
Primary Alkyl Alcohol			Proprietary			15-20%	EU 67/548 Classification: Flammable, Toxic Risk Phrase Codes: R11, R23/24/25, R39/23,24,25 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 2, Acute Oral Toxicity Cat. 3, Acute Dermal Toxicity Cat. 3, Acute Inhalation Toxicity Cat. 3, STOT (Ingestion-Eye) SE Cat. 1 Hazard Statement Codes: H225, H301 + H311 + H331, H370
Alkenoic Acid			Proprietary			5-10%	SELF-CLASSIFICATION EU 67/548 Classification: Irritant Risk Phrase Codes: Xi GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Skin Irritation Cat. 2 Hazard Statement Codes: H315
Cyclic Secondary Amine			Proprietary			3-7%	EU 67/548 Classification: Flammable, Corrosive Risk Phrase Codes: R10, R20/21/22, R34 GHS & EU CLP 1272/2008, KOREAN ISHA Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Skin Corrosion Cat. 1B Hazard Statement Codes: H226, H302 + H312 + H332, H314

See Section 16 for full text of classification. See Section 15 for information on other country inventory listing of components, as applicable

PART II What should I do if a hazardous situation occurs?

4 FIRST-AID MEASURES

PROTECTION OF FIRST AID RESPONDERS: Rescuers should be taken for medical attention if necessary. Remove or cover gross contamination to avoid exposure to rescuers.

DESCRIPTION OF FIRST AID MEASURES: Persons developing hypersensitivity reactions should receive medical attention. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and SDS to physician or health professional with the contaminated individual.



4 FIRST-AID MEASURES (Continued)

DESCRIPTION OF FIRST AID MEASURES (continued):

Skin Exposure: Wash gently and thoroughly with water for 20 minutes or until chemical is removed. While under running water, remove contaminated clothing, shoes and leather goods. Seek medical attention if adverse effect persists after decontamination.

Eye Exposure: If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 20 minutes. The contaminated individual must seek medical attention if any adverse effect continues after rinsing.

Inhalation: If vapors of this product are inhaled, causing irritation, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if adverse effect continues after removal to fresh air.

Ingestion: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. Lean victim forward to avoid aspiration into the lungs if vomiting occurs naturally. If victim is convulsing, maintain an open airway and obtain immediate medical attention. If heart or breathing has stopped, trained persons should administer cardiopulmonary resuscitation (CPR) until medical personnel arrive.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory or skin conditions may be aggravated by repeated exposure to this product.

IMPORTANT SYMPTOMS AND EFFECTS: See Sections 2 (Hazard Identification) and 11 (Toxicological Information).

IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT (Cleveland open cup): 40.5°C (105°F)

AUTOIGNITION TEMPERATURE: Not established.

FLAMMABLE LIMITS (in air by volume, %): LEL: 1.1% UEL: 10.6%

FIRE EXTINGUISHING MEDIA: In the event of a fire, use suppression media for surrounding materials (e.g., water spray, dry chemical, carbon dioxide, foam, any "ABC" class extinguisher).

UNSUITABLE FIRE EXTINGUISHING MEDIA: Halons.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE: This product is combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic compounds (including carbon oxides). Vapors can travel a long distance to an ignition source and flash back.

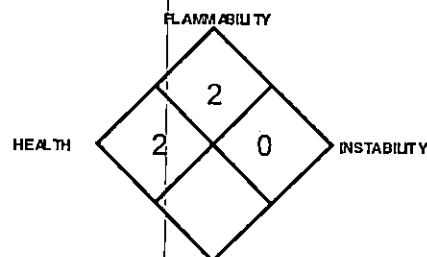
Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Vapors from this product may be ignited by static energy.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. In case fire involving large volume of product, water may be ineffective to completely extinguish fire; however, water can be used to extinguish the fire when a number of hose streams are applied by experienced firefighters to sweep the flames off the surface of the burning liquid. Water can also be applied as a fine spray to absorb the heat of the fire and to cool exposed containers and materials, and can be used to extinguish the fire when hose streams are applied by experienced firefighters trained in fighting all types of combustible liquid fires. Water can also be applied as a fine spray to absorb the heat of the fire and to cool exposed containers and materials, and can be used to extinguish the fire when hose streams are applied by experienced firefighters trained in fighting all types of combustible liquid fires. Water spray can be used to dilute spills to raise the flash point and to flush spills away from ignition sources. Solid streams of water may be ineffective and spread material. If this liquid is involved in a fire, fire runoff water should be contained to prevent possible environmental damage. If necessary, decontaminate fire-response equipment with soap and water solution.

HAZCHEM CODE (AUSTRALIA): 3Y

NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Eliminate any possible sources of ignition, and provide maximum explosion-proof ventilation. Use only non-sparking tools and equipment during the response. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666). The atmosphere must at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection.

PERSONAL PROTECTIVE EQUIPMENT: Proper protective equipment should be used. Use only non-sparking tools and equipment.

Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.

Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus.



6. ACCIDENTAL RELEASE MEASURES (Continued)

METHODS FOR CLEAN-UP AND CONTAINMENT:

Small Spills: Carefully absorb spill using polypads or other non-reactive absorbent. Place spilled material in appropriate container for disposal, sealing tightly. Remove all residue before decontamination of spill area.

Large Spills: Access to the spill area should be restricted. For large spills, dike or otherwise contain spill and absorb spill with polypads or other non-reactive absorbent material. Monitor area for combustible vapor levels.

All Spills: Place all spill residue in a double plastic bag or other containment and seal. Decontaminate the area thoroughly. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Run-off water may be contaminated by other materials and should be contained to prevent possible environmental damage.

REFERENCE TO OTHER SECTIONS: See information in Section 8 (Exposure Controls – Personal Protection) and Section 13 (Disposal Considerations) for additional information.

PART III How can I prevent hazardous situations from occurring?

7. HANDLING and USE

PRECAUTIONS FOR SAFE HANDLING: All employees who handle this material should be trained to handle it safely. Minimize all exposure to this substance. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing this product. Keep away from heat, sparks, and other sources of ignition. Use non-sparking tools. Bond and ground containers during transfers of material. Containers of this product must be properly labeled.

CONDITIONS FOR SAFE STORAGE: Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Storage areas should be made of fire resistant materials. **Local Fire Departments should be notified of the storage of this product on site. Storage and processing areas of this product should be identified with a NFPA 704 placard (diamond) large enough to be seen from a distance.** Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Have appropriate extinguishing equipment in the storage area (such as sprinkler systems or portable fire extinguishers). Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage.

SPECIFIC END USE(S): This product is a diesel fuel additive. Follow all industry standards for use of this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:

Ventilation and Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits provided in this section, if applicable. Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside, taking necessary precautions for environmental protection. Ensure eyewash/safety shower stations are available near where this product is used.

Occupational/Workplace Exposure Limits/Guidelines:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							OTHER
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	
		TWA	STEL	TWA	STEL	TWA	STEL		
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	
n-Butyl Alcohol	71-36-3	20	NE	100	50 (ceiling) [Vacated 1989 PEL]	NE	50 [skin] (ceiling)	1400 (based on 10% of LEL)	DFG MAKs: TWA = 100 PEAK = 1•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C Carcinogen: EPA-D

NE = Not Established. See Section 16 for Definitions of Terms Used.



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

Occupational/Workplace Exposure Limits/Guidelines (continued):

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							OTHER
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		IDLH	
		TWA ppm	STEL ppm	TWA ppm	STEL ppm	TWA ppm	STEL ppm		
Ethylene Glycol Monobutyl Alcohol	111-76-2	20	NE	50 (skin) 25 (Vacated 1989 PEL)	300 (Vacated 1989 PEL)	5 (skin)	NE	700	DFG MAKs: TWA = 10 (sum of the concentrations of) [skin] PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C Carcinogen: EPA-CBD, EPA-C, IARC-3, MAK-4, TLV-A3
Proprietary Primary Alkyl Alcohol		200 (skin)	250 (skin)	200	250 (Vacated 1989 PEL)	200 (skin)	260 (skin)	6000	DFG MAKs: TWA = 200 (skin) PEAK = 4•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C
Proprietary Cyclic Secondary Amine		20 (skin)	NE	20 (skin)	30 (Vacated 1989 PEL)	20 (skin)	30 (skin)	1400 (based on 10% of LEL)	DFG MAKs: TWA = 10 PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: D Carcinogen: IARC-3, TLV-A4
Proprietary Alkenoic Acid		NE	NE	NE	NE	NE	NE	NE	Carcinogen: MAK-3

NE = Not Established. See Section 16 for Definitions of Terms Used.

Workplace Exposure Standards (New Zealand): None established. Refer to the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001 (Regulations 29-30).

Exposure Standards Outside the Workplace (New Zealand): Currently, there are no other exposure limits such as TELS and EELS (See Section 12 [Ecological Information] for EEL information) established for components of this product.

Other International Exposure Limits: The following additional international exposure limits are in force some components. Exposure limits change and appropriate authorities should be in individual countries should be contacted to determine if more recent information is available.

n-BUTYL ALCOHOL:

Australia: CL = 50 ppm (152 mg/m³), JUL 2008
 Belgium: TWA = 50 ppm (154 mg/m³), Skin, MAR 2002
 Denmark: CL = 50 ppm (150 mg/m³), skin, MAY 2011
 Finland: TWA = 50 ppm (150 mg/m³), STEL = 75 ppm (230 mg/m³), skin, NOV 2011
 France: VLE = 50 ppm (150 mg/m³), FEB 2006
 Germany: MAK = 100 ppm (310 mg/m³), 2011
 Hungary: TWA = 45 mg/m³, STEL = 90 mg/m³, Skin, SEP 2000
 India: TWA = 50 ppm (150 mg/m³), Skin, JAN 1993
 Iceland: STEL = 50 ppm (150 mg/m³), skin, NOV 2011
 Japan: CL = 50 ppm (150 mg/m³), skin, MAY 2012
 Korea: CL = 50 ppm (150 mg/m³), 2006
 Mexico: Peak = 50 ppm (150 mg/m³) (skin), 2004
 New Zealand: CL = 50 ppm (150 mg/m³), skin, JAN 2002
 Norway: TWA = 25 ppm (75 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (61 mg/m³); STEL = 50 ppm (152 mg/m³), JUL 2005
 The Philippines: TWA = 100 ppm (300 mg/m³), JAN 1993
 Poland: TWA = 50 mg/m³, STEL 140 mg/m³, JAN 1999
 Russia: TWA = 10 mg/m³, STEL 30 mg/m³, JUN 2003
 Sweden: TWA = 15 ppm (45 mg/m³), CL = 30 ppm (90 mg/m³), Skin, JUN 2005
 Switzerland: CL = 50 ppm (150 mg/m³), JAN 2011
 Turkey: TWA = 100 ppm (300 mg/m³), JAN 1993
 United Kingdom: STEL = 50 ppm (154 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Korea, New Zealand, Singapore, Vietnam, check ACGIH TLV

ETHYLENE GLYCOL MONOBUTYL ETHER:

Australia: TWA = 20 ppm (96.9 mg/m³), STEL = 50 ppm (242 mg/m³), JUL 2008
 Austria: MAK-TMW = 20 ppm (98 mg/m³); KZW = 40 ppm (200 mg/m³), skin, 2007
 Belgium: TWA = 20 ppm (98 mg/m³), MAR 2002
 Belgium: STEL = 50 ppm (246 mg/m³), Skin, MAR 2002
 Denmark: TWA = 20 ppm (98 mg/m³), skin, MAY 2011
 EC: TWA = 98 mg/m³ (20 ppm); STEL = 246 mg/m³ (50 ppm), skin, JUN 2000
 Finland: TWA = 20 ppm (98 mg/m³), STEL = 50 ppm (250 mg/m³), skin, NOV 2011
 France: VME = 2 ppm (9.8 mg/m³), VLE = 30 ppm (147.6 mg/m³), Skin, FEB 2006
 Germany: MAK = 10 ppm (49 mg/m³), skin, 2011
 Hungary: TWA = 98 mg/m³, STEL = 246 mg/m³, Skin, SEP 2000
 Iceland: TWA = 20 ppm (100 mg/m³), STEL = 50 ppm (246 mg/m³), skin, NOV 2011
 Korea: TWA = 25 ppm (120 mg/m³), skin, 2006

ETHYLENE GLYCOL MONOBUTYL ETHER (continued):

Mexico: TWA = 26 ppm (120 mg/m³); STEL = 75 ppm (skin), 2004
 The Netherlands: MAC-TGG = 100 mg/m³, Skin, 2003
 New Zealand: TWA = 25 ppm (121 mg/m³), skin, JAN 2002
 Norway: TWA = 20 ppm (100 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (97 mg/m³); STEL = 50 ppm (242 mg/m³), JUL 2005
 The Philippines: TWA = 50 ppm (240 mg/m³), Skin, JAN 1993
 Poland: MAC(TWA) = 100 mg/m³, MAC(STEL) = 360 mg/m³, JAN 1999
 Russia: STEL = 5 mg/m³, JUN 2003
 Sweden: TWA = 10 ppm (50 mg/m³); STEL = 20 ppm (100 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 10 ppm (49 mg/m³), KZG-W = 20 ppm (98 mg/m³), skin, JAN 2011
 Turkey: TWA = 50 ppm (240 mg/m³), JAN 1993
 United Kingdom: TWA = 25 ppm (123 mg/m³); STEL = 50 ppm (246 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV
PRIMARY ALKYL ALCOHOL:
 ARAB Republic of Egypt: TWA = 200 ppm (260 mg/m³), Skin, JAN 1993
 Australia: TWA = 200 ppm (262 mg/m³), STEL = 250 ppm (328 mg/m³), JUL 2008
 Austria: MAK-TMW = 200 ppm (260 mg/m³); KZW = 800 ppm (1040 mg/m³), skin, 2007
 Belgium: TWA = 200 ppm (266 mg/m³), MAR 2002
 Belgium: STEL = 250 ppm (333 mg/m³), Skin, MAR 2002
 Denmark: TWA = 200 ppm (260 mg/m³), skin, MAY 2011
 EC: TWA = 260 mg/m³ (200 ppm), skin, FEB 2006
 Finland: TWA = 200 ppm (270 mg/m³), STEL = 250 ppm (330 mg/m³), skin, NOV 2011
 France: VME = 200 ppm (260 mg/m³), VLE = 1000 ppm (1300 mg/m³), FEB 2006
 Germany: MAK = 200 ppm (270 mg/m³), 2011
 Hungary: TWA = 260 mg/m³, STEL 1040 mg/m³, Skin, SEP 2000
 Iceland: TWA = 200 ppm (260 mg/m³), skin, NOV 2011
 Japan: OEL = 200 ppm (260 mg/m³), skin, MAY 2012
 Korea: TWA = 200 ppm (260 mg/m³), STEL = 250 ppm (310 mg/m³), skin, 2006
 Mexico: TWA = 200 ppm (260 mg/m³); STEL = 310 mg/m³ (250 ppm), 2004
 The Netherlands: MAC-TGG = 260 mg/m³, Skin, 2003
 New Zealand: TWA = 200 ppm (262 mg/m³); STEL = 250 ppm (328 mg/m³), skin, JAN 2002
 Norway: TWA = 100 ppm (130 mg/m³), JAN 1999
 Peru: TWA = 200 ppm (262 mg/m³); STEL = 250 ppm (328 mg/m³), JUL 2005



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

International Exposure Limits (continued):

PRIMARY ALKYL ALCOHOL (continued):

The Philippines: TWA = 200 ppm (260 mg/m³), JAN 1993
 Poland: MAC(TWA) = 100 mg/m³, MAC(STEL) = 300 mg/m³, JAN 1999
 Russia: TWA = 5 mg/m³, STEL 15 mg/m³, Skin, JUN 2003
 Sweden: TWA = 200 ppm (250 mg/m³); STEL = 250 ppm (350 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 200 ppm (260 mg/m³), KZG-W = 800 ppm (1040 mg/m³), skin, JAN 2011
 Thailand: TWA = 200 ppm (260 mg/m³), JAN 1993
 Turkey: TWA = 200 ppm (260 mg/m³), JAN 1993
 United Kingdom: TWA = 200 ppm (266 mg/m³); STEL = 250 ppm (333 mg/m³), skin, OCT 2007

In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam, check ACGIH TLV

CYCLIC SECONDARY AMINE:

Australia: TWA = 20 ppm (71 mg/m³), JUL 2008
 Austria: MAK-TMW = 10 ppm (36 mg/m³); KZW = 10 ppm (36 mg/m³), skin, 2007
 Belgium: TWA = 10 ppm (36 mg/m³), MAR 2002
 Denmark: STEL = 20 ppm (72 mg/m³), Skin, MAR 2002
 Finland: TWA = 10 ppm (36 mg/m³), skin, MAY 2011
 EC: TWA = 36 mg/m³ (10 ppm); STEL = 72 mg/m³ (20 ppm), FEB 2006
 France: VME = 20 ppm (70 mg/m³), VLE = 30 ppm (105 mg/m³), FEB 2006

CYCLIC SECONDARY AMINE (continued):

Germany: MAK = 10 ppm (36 mg/m³), 2011
 Hungary: TWA = 70 mg/m³, STEL = 70 mg/m³, Skin, SEP 2000
 Iceland: TWA = 10 ppm (36 mg/m³), STEL = 20 ppm (72 mg/m³), skin, NOV 2011
 Korea: TWA = 20 ppm (70 mg/m³), STEL = 30 ppm (105 mg/m³), skin, 2006
 Mexico: TWA = 20 ppm (70 mg/m³); STEL = 30 ppm (skin), 2004
 The Netherlands: MAC-TGG = 36 mg/m³, Skin, 2003
 New Zealand: TWA = 20 ppm (71 mg/m³), skin, JAN 2002
 Norway: TWA = 20 ppm (70 mg/m³), JAN 1999
 Peru: TWA = 20 ppm (71 mg/m³), JUL 2005
 The Philippines: TWA = 20 ppm (70 mg/m³), Skin, JAN 1993
 Poland: MAC(TWA) = 70 mg/m³, MAC(STEL) = 100 mg/m³, JAN 1999
 Russia: TWA = 0.5 mg/m³, STEL = 1.5 mg/m³, Skin, JUN 2003
 Sweden: TWA = 10 ppm (35 mg/m³); STEL = 15 ppm (50 mg/m³), Skin, JUN 2005
 Switzerland: MAK-W = 10 ppm (36 mg/m³), KZG-W = 20 ppm (72 mg/m³), skin, JAN 2011
 United Kingdom: TWA = 10 ppm (36 mg/m³); STEL = 20 ppm (72 mg/m³), skin, OCT 2007
 In Argentina, Bulgaria, Colombia, Jordan, Korea, New Zealand, Singapore, Vietnam check ACGIH TLV

ALKENOIC ACID:

Russia: STEL = 5 mg/m³, JUN 2003

PROTECTIVE EQUIPMENT: The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hard Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand/body protection, and CR 13464:1999 for face/eye protection), standards of Australia (including AS/NZS 1715:1994 for respiratory PPE, AS/NZS 4501.2:2006 for protective clothing, AS/NZS 2161.1:2000 for glove selection, and AS/NZS 1336:1997 for eye protection), or standards of Japan (including JIS T 8116:2005 for glove selection, JIS T 8150:2006 for respiratory PPE, JIS T 8147:2003 for eye protectors, and JIS T 8030:2005 for protective clothing). Please reference applicable regulations and standards for relevant details.

Respiratory Protection: Maintain airborne contaminant concentrations below exposure limits listed in this section, if applicable. If respiratory protection is needed, use only protection authorized in applicable regulations. Oxygen levels below 19.5% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998). For additional information, the following U.S. NIOSH recommendations for respiratory protection for the n-Butyl Alcohol, Primary Alkyl Alcohol and Ethylene Glycol Monobutyl Ether components, are provided below to assist in respiratory protection equipment.

n-BUTYL ALCOHOL

CONCENTRATION

RESPIRATORY PROTECTION

Up to 1250 ppm: Any Supplied-Air Respirator (SAR) operated in a continuous-flow mode, or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge(s).

Up to 1400 ppm: Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s), or any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any PAPR with a tight-fitting facepiece and organic vapor cartridge(s), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece, or any SAR with a full facepiece.

Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape: Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.

ETHYLENE GLYCOL MONOBUTYL ETHER

CONCENTRATION

RESPIRATORY PROTECTION

Up to 50 ppm: Any Chemical Cartridge Respirator with organic vapor cartridge(s), or any Supplied-Air Respirator (SAR).

Up to 125 ppm: Any SAR operated in a continuous-flow mode, or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge.

Up to 250 ppm: Any Chemical Cartridge Respirator with a full facepiece and organic vapor cartridge(s), or any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any PAPR with a tight-fitting facepiece and organic vapor cartridge(s), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece, or any SAR with a full facepiece.

Up to 700 ppm: Any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Emergency or Planned Entry Into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.

Escape: Any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.



8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

PROTECTIVE EQUIPMENT (continued):

Respiratory Protection (continued):

PRIMARY ALKYL ALCOHOL

CONCENTRATION	RESPIRATORY PROTECTION
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Up to 2000 ppm:	Any Supplied-Air Respirator (SAR).
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Up to 5000 ppm:	Any SAR operated in a continuous-flow mode.
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Up to 6000 ppm:	Any SAR that has a tight-fitting facepiece and is operated in a continuous-flow mode, or any Self-Contained Breathing Apparatus SCBA with a full facepiece, or any SAR with a full facepiece.
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Emergency or Planned	Entry into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.
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Escape:	Any appropriate escape-type, SCBA.
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Eye Protection: Splash goggles or safety glasses. If necessary, refer to appropriate regulations.

Hand Protection: Wear gloves appropriate for use with glycol ethers and alcohols. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. If necessary, refer to appropriate regulations.

Body Protection: If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection under appropriate regulations.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Liquid.

MOLECULAR FORMULA: Mixture.

ODOR: Mild, sweet, ether-like.

0.011 ppm

BOILING POINT: 123°C (253.5°F)

EVAPORATION RATE (nBuAc = 1): 0.41

VAPOR PRESSURE (air = 1): 4.0

SPECIFIC GRAVITY @20°C (water = 1): 0.85

COEFFICIENT WATER/OIL DISTRIBUTION: Not available for product.

HOW TO DETECT THIS SUBSTANCE (identification properties): The appearance and odor of this product can be a distinguishing characteristic to identify it in event of accidental release.

COLOR: Yellowish.

MOLECULAR WEIGHT: Mixture.

ODOR THRESHOLD: For Cyclic Secondary Amine:

FREEZING/MELTING POINT: Not established.

SOLUBILITY IN WATER: 100%

VAPOR DENSITY: 2.71

pH: Not established.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: This product is stable and is not reactive.

DECOMPOSITION PRODUCTS: *Combustion:* Irritating fumes and toxic gases (e.g., carbon oxides, nitrogen oxides, ammonia, hydrogen cyanide, peroxides and formaldehyde). *Hydrolysis:* None.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This material may be incompatible with strong oxidizing agents (e.g. bromine, chlorine, chromium trioxide, nitric acid, perchlorates or sodium hypochlorite), hydrogen peroxide, metals (e.g. powdered aluminum or magnesium), carbon tetrachloride and metals (e.g. aluminum, magnesium or zinc), alkali metals (e.g. sodium or potassium), acetyl bromide, dichloromethane, perchloric acid or metal perchlorates (e.g. barium perchlorate or lead perchlorate), potassium tert-butoxide, alkylaluminum solutions, beryllium hydride, cyanuric chloride, isocyanates or phosphorus (iii) oxide (tetraphosphorus hexaoxide), diethyl zinc, mineral acids (e.g. sulfuric acid), organic acids, acid anhydrides, acid chlorides or sodium hydroxide and chloroform, cellulose nitrate, nitromethane, nitrites, nitrous acid, nitrogen oxides, aluminum, halogens (e.g. bromine or chlorine), lithium aluminum hydride, isocyanates (e.g. toluene diisocyanate, hexamethylene diisocyanate or methyl isocyanate).

POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid heat, light, and contact with incompatible chemicals.

PART IV Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of occupational exposure are expected to be by inhalation, skin and eye contact. The symptoms of exposure to this product are as follows:

Inhalation: Inhalation of mists, sprays, fumes or vapors from this product may cause central nervous system effects, including incoordination, dizziness, drowsiness, headache, nausea and vomiting. In addition, inhalation of high concentration may cause corrosive effects such as a burning sensation, sore throat, runny nose, coughing, wheezing, shortness of breath and difficulty breathing. In severe cases, potentially fatal lung injury (pulmonary edema) may result. The symptoms of pulmonary edema, such as chest pain and shortness of breath, may be delayed up to 24 hours after exposure. Due to the high level of Ethylene Glycol Monobutyl Ether, short-term exposure by inhalation may cause adverse blood system effects (red blood cell fragility, hemoglobinuria) at low concentrations, based on animal tests.

Contact with Skin or Eyes: Contact with the liquid and the eyes will cause severe irritation. Vapor contact will cause irritation, including stinging, redness and tearing. Vapor contact may also produce temporary blurring of vision with a general bluish or



grayish haze and the appearance of halos around lights. Prolonged eye contact may cause damage to tissue.



11. TOXICOLOGICAL INFORMATION (Continued)

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE (continued):

Contact with Skin or Eyes (continued): Skin contact may be irritating. Prolonged skin contact may cause defatting of the skin and dermatitis and may cause severe irritation, burns, blistering and permanent scarring.

Skin Absorption: Components of this product can be absorbed through the skin and may cause harmful effect if a large area of skin is involved or contact is prolonged. Symptoms may include adverse central nervous system effects described under 'Inhalation' and 'Ingestion' and adverse blood system effects.

Ingestion: Ingestion is not a significant route of occupational exposure. Ingestion of this product can cause adverse central nervous system effects, with symptoms such as dizziness, incoordination, drowsiness, headache, nausea and vomiting. Due to the presence of the Primary Alkyl Alcohol, severe vision effects, including increased sensitivity to light, blurred vision, and blindness may develop following an 8-24 hour symptom-free period if ingested. Due to the high level of Ethylene Glycol Monobutyl Ether, ingestion may cause adverse blood system effects (red blood cell fragility, hemoglobinuria) at low concentrations, based on animal tests. Ingestion of products containing glycol ethers may cause harm to kidneys. Aspiration into the lungs is a potential hazard after ingestion.

Injection: Though not anticipated to be a significant route of exposure for this product, injection (via punctures or lacerations by contaminated objects) may cause redness at the site of injection.

IRRITANCY OF PRODUCT: This product may mildly to moderately irritate contaminated tissue.

SENSITIZATION OF PRODUCT: No component of this product is known to cause human skin or respiratory sensitization. The Alkenoic Acid component has been shown to cause skin sensitization in a laboratory animal assay in animals.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay

Terms. Exposure to this product may cause the following health effects:

Acute: This product may be harmful by inhalation, ingestion or if absorbed via intact skin. Ingestion may be fatal or cause significant eye effects or blindness. Inhalation of high concentration may be fatal or may cause adverse blood effects. Eye contact may cause severe irritation. Skin contact may be irritating.

Chronic: Prolonged or chronic skin contact may cause dermatitis. Long-term occupational exposure (inhalation and dermal) to ethylene glycol ethers, including Ethylene Glycol Monobutyl Ether, may be associated with increased oxalic acid loads, which can alter kidney function and may result in kidney stones.

TARGET ORGANS:

Acute: Skin, eyes, respiratory system, central nervous system, blood, blood-forming system.

Chronic: Skin, kidneys.

TOXICITY DATA: The following toxicity data are available for components of 1% concentration or greater. Due to the large amount of data for components, only available human data, LD50 (Oral-Rat or Mouse), LD50 (Skin-Rabbit or Rat), LC50 (Inhalation-Rat or Mouse), mutation data and irritation data are provided in this SDS. Contact Kinetic Fuel Technology for information on other data available.

n-BUTYL ALCOHOL:

Standard Draize Test (Eye-Human) 50 ppm
 Standard Draize Test (Eye-Human) 990 ppm/1 hour
 Standard Draize Test (Skin-Human) 20 µL/20 minutes
 TCLo (Inhalation-Human) 25 ppm: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Sense Organs and Special Senses (Eye): conjunctive irritation; Lungs, Thorax, or Respiration: other changes
 TDLo (Eye-Human) 72.5 mg/m³: Sense Organs and Special Senses (Eye): conjunctive irritation
 LDLo (Oral-Human) 428 mg/kg
 Standard Draize Test (Skin-Rabbit) 20 mg/24 hours: Moderate
 Standard Draize Test (Eye-Rabbit) 2 mg/24 hours: Severe
 Standard Draize Test (Eye-Rabbit) 1.62 mg: Severe
 Standard Draize Test (Eye-Rabbit) 0.005 mL: Severe
 LD₅₀ (Oral-Rat) 790 mg/kg: Liver: fatty liver degeneration; Kidney/Ureter/Bladder: other changes; Blood: other changes
 LD₅₀ (Oral-Rat) 4.36 gm/kg: Gastrointestinal: gastritis; Liver: other changes; Blood: hemorrhage
 LD₅₀ (Oral-Rat) 0.79 gm/kg
 LD₅₀ (Oral-Mouse) 100 mg/kg
 LD₅₀ (Skin-Rabbit) 3400 mg/kg

ETHYLENE GLYCOL MONOBUTYL ETHER:

Open Irritation Test (Skin-Rabbit) 500 mg: Mild
 Standard Draize Test (Eye-Rabbit) 100 mg: Severe
 Standard Draize Test (Eye-Rabbit) 100 mg/24 hours: Moderate
 LDLo (Oral-Human) 143 mg/kg
 TDLo (Oral-Woman) 600 mg/kg: Behavioral: coma; Lungs, Thorax, or Respiration: dyspnea; Nutritional and Gross Metabolic: metabolic acidosis

ETHYLENE GLYCOL MONOBUTYL ETHER (continued):

TDLo (Oral-Woman) 7813 µL/kg: Behavioral: coma; Vascular: BP lowering not characterized in autonomic section; Nutritional and Gross Metabolic: metabolic acidosis
 TCLo (Inhalation-Human) 195 ppm/8 hours: Gastrointestinal: nausea or vomiting
 TCLo (Inhalation-Human) 100 ppm: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Sense Organs and Special Senses (Eye): effect, not otherwise specified; Lungs, Thorax, or Respiration: other changes
 TCLo (Inhalation-Human) 1500 mg/m³: Sense Organs and Special Senses (Eye): conjunctive irritation; Liver: other changes; Kidney/Ureter/Bladder: other changes
 LC₅₀ (Inhalation-Rat) 450 ppm/4 hours: Behavioral: ataxia; Nutritional and Gross Metabolic: weight loss or decreased weight gain
 LC₅₀ (Inhalation-Rat) 2900 mg/m³/7 hours: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
 LC₅₀ (Inhalation-Mouse) 3380 mg/m³/7 hours: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
 LC₅₀ (Inhalation-Mouse) 700 ppm/7 hours: Behavioral: analgesia; Lungs, Thorax, or Respiration: dyspnea; Kidney/Ureter/Bladder: hematuria
 LD₅₀ (Oral-Rat) 470 mg/kg
 LD₅₀ (Oral-Rat) 917 mg/kg: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
 LD₅₀ (Oral-Mouse) 1230 mg/kg: Behavioral: altered sleep time (including change in righting reflex), somnolence (general depressed activity); Skin and Appendages: hair
 LD₅₀ (Oral-Mouse) 1167 mg/kg: Liver: other changes; Kidney/Ureter/Bladder: other changes; Blood: other hemolysis with or without anemia
 LD₅₀ (Skin-Rabbit) 220 mg/kg
 Mutation in Microorganisms (Bacteria-Salmonella typhimurium) 19 µmol/plate



HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD	(BLUE)	2*
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FLAMMABILITY HAZARD	(RED)	2
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PHYSICAL HAZARD	(YELLOW)	0
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PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8

For Routine Industrial Use and Handling Applications

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
 3 = Serious 4 = Severe * = Chronic hazard



11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA (continued):

PRIMARY ALKYL ALCOHOL:

TDLo (Oral-Man) 3571 µL/kg: Sense Organs and Special Senses (Eye): visual field changes; Lungs, Thorax, or Respiration: dyspnea; Blood; other changes
 TDLo (Oral-Man) 9450 µL/kg: Sense Organs and Special Senses (Eye): mydriasis (pupillary dilation); Behavioral: general anesthetic; Nutritional and Gross Metabolic: body temperature decrease
 TDLo (Oral-Man) 3429 mg/kg: Sense Organs and Special Senses (Eye): visual field changes
 TDLo (Oral-Woman) 4 gm/kg: Sense Organs and Special Senses (Eye): visual field changes; Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Oral-Man) 6422 mg/kg: Brain and Coverings: changes in circulation (hemorrhage, thrombosis, etc.); Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Oral-Woman) 10 mL/kg: Lungs, Thorax, or Respiration: respiratory depression; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects; Gastrointestinal: changes in structure or function of endocrine pancreas
 LDLo (Oral-Human) 428 mg/kg: Behavioral: headache; Lungs, Thorax, or Respiration: other changes
 LDLo (Oral-Human) 143 mg/kg: Sense Organs and Special Senses (Eye): optic nerve neuropathy; Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
 LDLo (Unreported-Man) 868 mg/kg
 TCLo (Inhalation-Human) 86,000 mg/m³: Sense Organs and Special Senses (Eye): lacrimation; Lungs, Thorax, or Respiration: cough, other changes
 TCLo (Inhalation-Human) 300 ppm: Sense Organs and Special Senses (Eye): visual field changes; Behavioral: headache; Lungs, Thorax, or Respiration: other changes
 Standard Draize Test (Skin-Rabbit) 20 mg/24 hours: Moderate
 Standard Draize Test (Eye-Rabbit) 40 mg: Moderate
 Standard Draize Test (Eye-Rabbit) 100 mg/24 hours: Moderate
 LD₅₀ (Oral-Rat) 5600 mg/kg
 LD₅₀ (Oral-Mouse) 7300 mg/kg
 LD₅₀ (Skin-Rabbit) 15,800 mg/kg
 LC₅₀ (Inhalation-Rat) 64000 ppm/4 hours
 LC₅₀ (Inhalation-Rabbit) 81000 mg/m³/14 hours
 DNA Inhibition (Human Lymphocyte) 300 mmol/L

PRIMARY ALKYL ALCOHOL (continued):

DNA Repair (Bacteria-*Escherichia coli*) 20 mg/well
 Mutation in Microorganisms (Yeast-*Saccharomyces cerevisiae*) 12 ppp
 Mutation in Microorganisms (Mouse Lymphocyte) 7900 mg/L
 Sex Chromosome Loss and Non-Disjunction (*Mold-Aspergillus nidulans*) 56,000 ppm
 Cytogenetic Analysis (Parenteral-Grasshopper) 3000 ppm
 Cytogenetic Analysis (Oral-Mouse) 1 gm/kg
 Cytogenetic Analysis (Intraperitoneal-Mouse) 75 mg/kg
 DNA Damage (Oral-Rat) 10 µmol/kg
 Morphological Transformation (Mouse-Fibroblast) 0.01 mg/L/21 days
CYCLIC SECONDARY AMINE:
 Open Irritation Test (Skin-Rabbit) 500 mg: Moderate
 Standard Draize Test (Eye-Rabbit) 2 mg: Severe
 LC₅₀ (Inhalation-Rat) 8000 ppm/8 hours
 LC₅₀ (Inhalation-Mouse) 1320 mg/m³/2 hours: Sense Organs and Special Senses (Eye): lacrimation; Behavioral: ataxia; Lungs, Thorax, or Respiration: cyanosis
 LC₅₀ (Inhalation-Mouse) 12,000 mg/m³: Behavioral: alteration of classical conditioning
 LC₅₀ (Inhalation-Mouse) 1.35 gm/m³
 LD₅₀ (Oral-Rat) 1738 mg/kg: Kidney/Ureter/Bladder: changes in blood vessels or in circulation of kidney
 LD₅₀ (Oral-Mouse) 525 mg/kg: Behavioral: sleep, somnolence (general depressed activity)
 LD₅₀ (Oral-Mouse) 1200 mg/kg
 Morphological Transformation (Mouse-Fibroblast) 125 mg/L
 Morphological Transformation (Mouse Lymphocyte) 1 µL/L
 Mutation in Mammalian Somatic Cells (Mouse Lymphocyte) 1 gm/L
 Sister Chromatid Exchange (Hamster Ovary) 160 mg/L
 Cytogenetic Analysis (Inhalation-Rat) 0.07 mg/L/122 days-intermittent
ALKENOIC ACID:
 Standard Draize Test (Skin-Human) 15 mg/3 days-intermittent: Moderate
 Standard Draize Test (Eye-Rabbit) 100 mg: Mild
 Open Irritation Test (Skin-Rabbit) 500 mg: Mild
 LD₅₀ (Oral-Rat) 25,000 mg/kg
 LD₅₀ (Oral-Mouse) 28,000 mg/kg
 Cytogenetic Analysis (Yeast-*Saccharomyces cerevisiae*) 100 mg/L
 Cytogenetic Analysis (Hamster Fibroblast) 2500 µg/L
 Unscheduled DNA Synthesis (Rectal-Mouse) 35 mg/kg

CARCINOGENIC POTENTIAL: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

n-BUTYL ALCOHOL: EPA-D (Not Classifiable a to Human Carcinogenicity)

ETHYLENE GLYCOL MONOBUTYL ETHER: ACGIH TLV-A3 (Confirmed Animal Carcinogen); EPA-CBD (Cannot Be Determined); EPA-C (Possible Human Carcinogen); IARC-3 (Not Classifiable as to Carcinogenicity to Humans); MAK-4 (Substances with Carcinogenic Potential for Which Genotoxicity Plays No or at Most, a Minor Role)

CYCLIC SECONDARY AMINE: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Not Classifiable as to Carcinogenicity to Humans)

ALKENOIC ACID: MAK-3 (Substances Which Cause Concern that They Could be Carcinogenic for Man but Cannot Be Assessed Conclusively Because of Lack of Data. The classification in Category 3 is provisional.

The remaining components of this product are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on animal or human reproductive systems.

Mutagenicity: The components of this product are not reported to cause mutagenic effects in humans. There is insufficient information available to conclude that the Primary Alkyl Alcohol component is mutagenic. A positive result was obtained in a limited oral study in mice, however other oral and inhalation studies in live rats and mice have given negative results. Mostly negative results have been obtained in cultured mammalian cells, bacteria and fruit flies (*Drosophila*).

Embryotoxicity: The components of this product are not reported to cause embryotoxic effects in humans. The Primary Alkyl Alcohol component has produced fetotoxicity in rats and teratogenicity in mice exposed by inhalation to high concentrations that did not produce significant maternal toxicity. The n-Butyl Alcohol component has caused embryotoxic and teratogenic effects in animal tests, but only with maternal toxicity.

Teratogenicity: The components of this product are not reported to cause teratogenic effects in humans. The Ethylene Glycol Monobutyl Ether has caused teratogenic effects, but only with maternal toxicity.

Reproductive Toxicity: The components of this product are not reported to cause reproductive effects in humans.

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, ACGIH Biological Exposure Indices (BEIs) have been determined for some components of this product, as follows:

CHEMICAL: DETERMINANT	SAMPLING TIME	BEI
Ethylene Glycol Monobutyl Ether • Butoxyacetic Acid in urine	• End of shift.	• 200 mg/g creatine
Primary Alkyl Alcohol • Methanol in urine	• End of shift.	• 15 mg/L



12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY: This product has not been tested for mobility in soil. The following information is available for some components.

n-BUTYL ALCOHOL: The Koc of n-Butyl Alcohol is estimated as 72, using a log Kow of 0.88 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that n-Butyl Alcohol is expected to have high mobility in soil.

ETHYLENE GLYCOL MONOBUTYL ETHER: The Koc of 2-Butoxyethanol is estimated as 67, using a log Kow of 0.83 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that 2-Butoxyethanol is expected to have high mobility in soil.

PRIMARY ALKYL ALCOHOL: Using a structure estimation method based on molecular connectivity indices, the Koc for this material can be estimated to be 1. According to a classification scheme, this estimated Koc value suggests that this material is expected to have very high mobility in soil.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability. The following information is available for some components.

n-BUTYL ALCOHOL: If released to air, a vapor pressure of 7 mm Hg at 25° C indicates n-Butyl Alcohol will exist solely as a vapor in the ambient atmosphere. Vapor-phase n-Butyl Alcohol will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 46 hours. If released to soil, n-Butyl Alcohol is expected to have high mobility based upon an estimated Koc of 72. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 8.8X10⁻⁶ atm-cu m/mole. n-Butyl Alcohol may volatilize from dry soil surfaces based upon its vapor pressure. The biodegradation half-life of n-Butyl Alcohol in a sub-surface soil was approximately 7 days. If released into water, n-Butyl Alcohol is not expected to adsorb to suspended solids and sediment in water based upon the estimated Koc. Volatilization from water surfaces is expected to be an important environmental fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 2 and 29 days, respectively. In a river die-away test, n-Butyl Alcohol achieved 33% of its theoretical BOD in 5 days, suggesting biodegradation will be an important fate process in water. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental conditions.

ETHYLENE GLYCOL MONOBUTYL ETHER: If released to air, a vapor pressure of 0.88 mm Hg at 25°C indicates 2-Butoxyethanol will exist solely as a vapor in the ambient atmosphere. Vapor-phase 2-Butoxyethanol will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 16 hours. If released to soil, 2-Butoxyethanol is expected to have high mobility based upon an estimated Koc of 67. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 1.60X10⁻⁶ atm-cu m/mole. If released into water, 2-Butoxyethanol is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. 2-Butoxyethanol reached 91% of its theoretical BOD in 14 days using an activated sludge inoculum. Therefore this compound has the potential to biodegrade rapidly in water. Based upon this compound's estimated Henry's Law constant it is concluded that the volatilization of 2-Butoxyethanol from water surfaces may be an important fate process. The estimated volatilization half-lives for a model river and model lake are 25 and 185 days, respectively. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental conditions.

PRIMARY ALKYL ALCOHOL: If released to the atmosphere, a vapor pressure of 127 mm Hg at 25°C indicates that this material will exist solely in the vapor phase. Vapor phase this material is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 17 days. If released to soil, this compound is expected to have very high mobility based upon an estimated Koc of 1. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 4.55X10⁻⁶ atm-cu m/mole. This compound may also volatilize from dry soils based upon its vapor pressure. Biodegradation in soils is expected to occur rapidly based on half-lives in a sandy silt loam from Texas and a sandy loam from Mississippi of 1 and 3.2 days, respectively. If released into water, this compound is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 3 and 35 days, respectively. Biodegradation is expected to occur in natural waters since this material is degraded quickly in soils and was biodegraded rapidly in various aqueous screening tests using sewage seed or activated sludge. BCF values of less than 10, measured in fish suggests bioconcentration in aquatic organisms is low. Hydrolysis photolysis in sunlit surface waters are not expected since this compound lacks functional groups that are susceptible to hydrolysis or photolysis under environmental conditions.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. The following information is available for some components.

n-BUTYL ALCOHOL: An estimated BCF of 3 was calculated for n-Butyl Alcohol, using a log Kow of 0.88 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low. Octanol/Water Partition Coefficient: Log Kow = 0.88

ETHYLENE GLYCOL MONOBUTYL ETHER: An estimated BCF of 3 was calculated for 2-Butoxyethanol, using an estimated log Kow of 0.83 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low.

PRIMARY ALKYL ALCOHOL: Fish (golden ide) exposed to 0.05 mg/L of this material for three days in an aquatic tank had measured BCF values of less than 10. Based on a classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.

ECOTOXICITY: This product has not been tested for toxicity to aquatic or terrestrial organisms; however, all release to terrestrial, atmospheric and aquatic environments should be avoided. Release of this product to an aquatic environment may be harmful to aquatic plant and animal life in contaminated bodies of water, especially in large quantities. The following aquatic toxicity data are available for some components. Only select data are presented in this SDS. Contact Kinetic Fuel Technologies for information on other data available.

n-BUTYL ALCOHOL:

LC₅₀S (fathead minnow) 96 hours = 1,910 mg/L

LC₅₀ (*Alburnus alburnus*) 96 hours = 2,300 mg/L

LC₅₀ (*Nitocra spinipes*) 96 hours = 2,100 mg/L

ETHYLENE GLYCOL MONOBUTYL ETHER:

LC₅₀ (*Menidia beryllina* Inland silverside) 96 hours = 1250 mg/L; static

LC₅₀ (*Crangon crangon* Brown shrimp) 96 hours = 775 mg/L (range: 550-950 mg/L)

LC₅₀ (*Lepomis macrochirus* Bluegill) 96 hours = 1,490 mg/L; static

LC₅₀ (*Pimephales promelas* Fathead minnow) 96 hours = 2137 mg/L

LC₅₀ (*Oncorhynchus mykiss* Rainbow trout) 96 hours = > 1000 mg/L

LC₅₀ (*Crassostrea virginica* Oyster) 96 hours = 89 mg/L

LC₅₀ (*Cyprinodon variegatus* Sheepshead minnow) 96 hours = 116 mg/L

LC₅₀ (*Artemia salina* Brine shrimp) 24 hours = 1000 mg/L

PRIMARY ALKYL ALCOHOL:

EC₅₀ (*Daphnia magna* Water flea; Immobilization) 24 hours = > 10,000 mg/L

LC₅₀ (*Artemia salina* Brine shrimp, 24 hr old) 24 hours = 1578.84 mg/L

LC₅₀ (*Pimephales promelas* fathead minnows, 30 day old 0.12 g) 96 hours = 28,100 mg/L

LC₅₀ (*Oncorhynchus mykiss* Rainbow trout, 0.8 g) 96 hours = 19,000 mg/L

PRIMARY ALKYL ALCOHOL (continued):

LC₅₀ (*Lepomis macrochirus* Bluegill) 96 hours = 15,400 mg/L; flow-through

LC₅₀ (*Nitocra spinipes* Harpacticoid copepod, adult) 96 hours = 12,000 mg/L

LC₅₀ (*Alburnus alburnus* Bleak, 8 cm) 96 hours = 28,000 mg/L

LC₅₀ (*Gammarus fasciatus*) 96 hours = > 100 mg/L

LC₅₀ (*Helisoma trivolvis* aquatic mollusk) 96 hours = > 100 mg/L

LC₅₀ (*Dugesia tigrina* aquatic worm) 96 hours = > 100 mg/L

LC₅₀ (*Coriodaphnia dubia*) 48 hours = 11 mg/L

LC₅₀ (*Lumbriculus variegatus* aquatic worm) 96 hours = > 100 mg/L

LC₅₀ (*Crangon crangon* Brown shrimp, adult) 96 hours = 1340 mg/L

LC₅₀ (*Mytilus edulis* Mussel, 5-7 cm) 96 hours = 15,900 mg/L

LC₅₀ (*Agonus cataphractus* Armed bullhead, adult) 96 hours = 7900-26,070 mg/L

CYCLIC SECONDARY AMINE:

LC₅₀ (bluegill) 96 hours = 350 mg/L

LC₅₀ (daphnia) 24 hours = 100 mg/L

EC₅₀ (*Daphnia magna*) 24 hours = 119 mg/L (immobilization)

ALKENOIC ACID:

LC₅₀ (*Pimephales promelas* Fathead minnow, juvenile 4-8 wk, length 1.1-3.1 cm) 96 hours = 205,000 µg/L

OTHER ADVERSE EFFECTS: No component of this product is known to have ozone depletion potential.

ENVIRONMENTAL EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

ENVIRONMENTAL EXPOSURE LIMITS (New Zealand): Currently, there are no EELS established for components of this product.

SULTS OF PBT AND vPvB ASSESSMENT: No data available. PBT and vPvB assessments are part of the chemical safety report required for some substances in European Union Regulation (EC) 1907/2006, Article 14.



13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT/DISPOSAL METHODS: It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

DISPOSAL CONTAINERS: Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Wear proper protective equipment when handling waste materials.

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada. This product, if unaltered by handling, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: Wastes of this product should be tested to determine if they meet the criteria for D001 Waste Characteristic-Ignitability.

EU EWC WASTE CODE: Waste organic solvents, refrigerants and foam/aerosol propellants, other solvents and solvent mixtures: 14 06 03*

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION SHIPPING REGULATIONS: This product is classified as Dangerous Goods, per regulations of the DOT.

UN Identification Number:	UN 1993
Proper Shipping Name:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class Number and Description:	3 (Flammable)
Packing Group:	PG III
Dot Label(s) Required:	Class 3 (Flammable)
Emergency Response Guidebook Number (2012):	128

Marine Pollutant: This compound is not specifically listed as a Marine Pollutant and does not meet the criteria of a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B).

CERCLA RQ: 5000 lb (2270 kg)

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable.

UN Identification Number:	UN 1993
Proper Shipping Name:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class Number and Description:	3 (Flammable)
Packing Group:	PG III
Hazard Label(s) Required:	Class 3 (Flammable)
Special Provisions:	16
Explosive Limit and Limited Quantity Index:	5
ERAP Index:	None
Passenger Carrying Ship Index:	None
Passenger Carrying Road or Rail Vehicle Index:	60

Marine Pollutant: This product does not meet the criteria of a Marine Pollutant under Transport Canada regulations, as per TDG 2.7.

INTERNATIONAL AIR TRANSPORT ASSOCIATION/ICAO (IATA/ICAO): This material is classified as dangerous goods, per the International Air Transport Association.

UN Identification Number:	UN 1993
Proper Shipping Name/Description:	Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
Hazard Class or Division:	3 (Flammable)
Hazard Label(s) Required:	Class 3 (Flammable)
Packing Group:	III
Excepted Quantities:	E1
Passenger and Cargo Aircraft Packing Instruction:	355
Passenger and Cargo Aircraft Packing Maximum Net Quantity per Pkg.:	60 L
Passenger and Cargo Aircraft Packing Limited Quantity Packing Instruction:	Y344
Passenger and Cargo Aircraft Packing Limited Quantity Maximum Net Quantity per Pkg.:	10 L
Cargo Aircraft Only Packing Instruction:	366
Cargo Aircraft Only Maximum Net Quantity per Pkg.:	60 L
Special Provisions:	A3
ERG Code:	3L



14. TRANSPORTATION INFORMATION (Continued)

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is classified as dangerous goods, per the International Maritime Organization.

UN No.: 1993
 Proper Shipping Name: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
 Hazard Class Number: 3
 Packing Group: III
 Special Provisions: 223, 274, 955
 Limited Quantities: 5 L
 Excepted Quantities: E1
 Packing: Instructions: P001, Provisions: LP01
 IBCs: Instructions: IBC03, Provisions: None
 Tanks: Instructions: T4, Provisions: TP1, TP29
 EmS: F-E, S-E
 Stowage Category: Category A.

Marine Pollutant: This product does not meet the criteria of a Marine Pollutant under UN criteria.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is classified by the Economic Commission for Europe to be dangerous goods.

UN NO.: 1993
 Name and Description: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
 Class: 3
 Classification Code: F1
 Packing Group: III
 Labels: 3
 Special Provisions: 274, 601, 640E
 Limited Quantities: 5 L
 Excepted Quantities: E1
 Packing Instructions: Instructions: P001, IBC03, LP01, R001
 Special Packing Provisions: None
 Mixed Packing Provisions: MP19
 Portable Tanks and Bulk Containers: Instructions: T4, Provisions: TP1, TP29
 Hazard Identification No.: 30

AUSTRALIAN FEDERAL OFFICE OF ROAD SAFETY CODE FOR THE TRANSPORTATION OF DANGEROUS GOODS BY ROAD OR RAIL: This product is classified as dangerous goods, per regulations of the Australian Federal Office of Road Safety.

UN NO.: 1993
 Name and Description: Flammable liquid, n.o.s. (n-Butyl alcohol, Methanol)
 Class or Division: 3
 Packing Group: III
 Special Provisions: 223, 274
 Limited Quantities: 5 L
 Excepted Quantities: E2
 Packing Instructions: Instructions: P001, IBC03, LP01
 Special Packing Provisions: None
 Portable Tanks and Bulk Containers: Instructions: T4, Special Provisions: TP1, TP29
 HazChem Code: 3Y

TRANSPORT IN BULK ACCORDING TO THE IBC CODE: See the information under the individual jurisdiction listings for IBC information.

ENVIRONMENTAL HAZARDS: This compound does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); and is not specifically listed in Annex III under MARPOL 73/78.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA Reporting Requirements: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows.

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
n-Butyl Alcohol	No	No	Yes
Ethylene Glycol Monobutyl Ether	No	No	Yes/N230
Methyl Alcohol	No	No	Yes



15. REGULATORY INFORMATION (Continued)

UNITED STATES REGULATIONS (continued):

U.S. SARA Threshold Planning Quantity (TPQ): There are no specific Threshold Planning Quantities for any component of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000

U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: No; FIRE: Yes; REACTIVE: No; SUDDEN RELEASE: No

U.S. CERCLA Reportable Quantities (RQ): n-Butyl Alcohol = 5000 lb (2270 kg); Primary Alkyl Alcohol = 5000 lb (2270 kg); the Ethylene Glycol Monobutyl Ether component has not been assigned a specific CERCLA RQ, but is a CERCLA Hazardous Substance.

U.S. TSCA Inventory Status: The components of this product are on the TSCA Inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component is on the California Proposition 65 lists.

CANADIAN REGULATIONS:

Canadian DSL/NDL Inventory Status: The components of this product are on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The components of this product are not on the CEPA Priorities Substances Lists.

Canadian WHMIS Classification and Symbols: B3: Flammable and Combustible Material: Combustible Liquid. D1A: Poisonous and Infectious Material: Immediate and Serious Effects: Toxic. D2A: Poisonous and Infectious Material: Other Effects: Very toxic. D2B: Poisonous and Infectious Material: Other Effects: Toxic, Sensitization Based on Animal Information.



ADDITIONAL EUROPEAN REGULATIONS:

Safety, Health, and Environmental Regulations/Legislation Specific for the Substance: Currently, there is no specific legislation pertaining to this product.

Chemical Safety Assessment: No data available. The chemical safety assessment is required for some substances according to European Union Regulation (EC) 1907/2006, Article 14.

ADDITIONAL AUSTRALIAN REGULATIONS:

Australian Inventory of Chemical Substances (AICS) Status: The components of this product are listed on the AICS.

Hazardous Substances Information System (HSIS): All components are listed in the HSIS, except the Alkenoic Acid component.

ADDITIONAL JAPANESE REGULATIONS:

Japanese ENCS: Components are on the ENCS Inventory, as indicated in composition tables in Section 3 (Composition and Information on Ingredients).

Japanese Ministry Of Economy, Trade, and Industry (METI) Status: The Cyclic Secondary Amine component is listed as Class I Specified Chemical Substance.

Poisonous and Deleterious Substances Control Law: The Primary Alkyl Alcohol component is listed as a Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

ADDITIONAL SINGAPORE REGULATIONS:

List of Controlled Hazardous Substances: Components are not listed on the Singapore List of Controlled Substances.

ADDITIONAL KOREAN REGULATIONS:

Korean Existing Chemical Substances Inventory Status: Components are listed on the Korean Existing Chemicals List, as indicated in composition tables in Section 3 (Composition and Information on Ingredients).

ADDITIONAL TAIWANESE REGULATIONS:

Taiwan Existing Chemical Substances Inventory Status: Components are listed on the Taiwan Existing Chemicals List.

ADDITIONAL CHINESE REGULATIONS:

Chinese Inventory of Existing Chemical Substances Status: Components are listed on the Chinese Inventory of Existing Chemical Substances (IECSC).

ADDITIONAL NEW ZEALAND REGULATIONS:

New Zealand Inventory of Chemicals (NZIoC): The components of this product are on the NZIoC.

ADDITIONAL MEXICAN REGULATIONS:

Mexican Workplace Regulations (NOM-018-STPS-2000): This product is classified as hazardous.

16. OTHER INFORMATION

U.S. ANSI LABELING (Based on 129.1, Provided to Summarize Occupational Exposure Hazards): WARNING! COMBUSTIBLE LIQUID AND VAPOR. CAN CAUSE ADVERSE CENTRAL NERVOUS SYSTEM EFFECTS BY INGESTION, INHALATION AND SKIN CONTACT. INGESTION AND INHALATION MAY BE FATAL. SKIN CONTACT MAY BE HARMFUL OR CAUSE IRRITATION. EYE CONTACT CAUSE SEVERE IRRITATION. INGESTION MAY CAUSE BLINDNESS OR ADVERSE BLOOD EFFECTS. ASPIRATION AFTER INGESTION MAY CAUSE PULMONARY EDEMA OR CHEMICAL PNEUMONITIS. Avoid breathing vapor. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Wear gloves, goggles, and appropriate body protection during handling. Keep away from heat, sparks and flame. Use only with adequate ventilation. Keep container closed.



16. OTHER INFORMATION (Continued)

U.S. ANSI LABELING (continued): **FIRST-AID:** In case of contact, immediately flush skin or eyes for at least 20 minutes with large amounts of water. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If ingested, DO NOT induce vomiting—seek immediate medical attention. **IN CASE OF FIRE:** Use water fog, dry chemical, CO₂, or "alcohol" foam. Do not use halons. Liquid may float and may re-ignite on the surface of water. **IN CASE OF SPILL:** Eliminate all sources of ignition. Use non-sparking tools. Absorb spill with inert material and place in suitable container. Place residual in appropriate container and seal. Dispose of according to applicable regulations. Consult Safety Data Sheet for additional information.

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with the GHS Standard.

Classification: Flammable Liquid Cat. 3, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity, Cat. 4, Skin Irritation Cat. 2, Eye Irritation Cat. 2A, STOT (Inhalation-Irritation) SE Cat. 3, STOT (Inhalation-Narcotic Effect) SE Cat. 3, STOT (Ingestion-Eye) SE Cat. 1

Signal Word: Danger

Hazard Statements: H226: Flammable liquid and vapor. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H315: Causes skin irritation. H318: Causes serious eye damage. H335: May cause respiratory irritation. H370: Causes damage to organs (eyes) if ingested.

Precautionary Statements:

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe gas/mist/vapors/spray. P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P370 + P378: In case of fire: Use materials appropriate for surrounding fire for extinction. Do not use halons. P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P301 + P312: If swallowed, Call a POISON CENTER or doctor/physician if you feel unwell. P330: Rinse mouth. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs, get medical attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P304 + P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. P310: Immediately call a POISON CENTER or doctor. P321: Specific treatment (remove from exposure and treat symptoms).

Storage: P403 + P233 + P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool. P405: Store locked up.

Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

Hazard Symbols/Pictograms: GHS02, GHS05, GHS07, GHS08

EU 67/548/EEC LABELING AND CLASSIFICATION: This material does not have a specific classification of hazardous, as defined by the European Union Council Directive 67/548/EEC or subsequent Directives. The following is a self-classification based on anticipated hazards.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10: Flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. R41: Risk of serious damage to eyes. R37/38: Irritating to respiratory system and skin. R67: Vapours may cause drowsiness and dizziness.

Safety Phrases: S1/2: Keep locked up and out of the reach of children. S8: Keep container tightly dry. S16: Keep away from sources of ignition - No smoking. S23: Do not breathe fumes/vapour/spray. S24/25: Avoid contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Hazard Symbols: F, Xn

KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, no differences in classification are applicable. Refer to information given under the Global Harmonization Standard Classification.

NEW ZEALAND HAZARDOUS SUBSTANCES and NEW ORGANISMS ACT (HNSO) CHEMICAL CLASSIFICATION:

The product is classified as follows under the regulation:

Classification:

- 3.1C: Flammable Liquids: medium hazard.
- 6.1D (Oral, Dermal, Inhalation): Acutely toxic.
- 6.3A: Irritating to the skin.
- 6.8B: Suspected human reproductive or developmental toxicants.
- 6.9A (Inhalation): Toxic to human target organs or systems.
- 6.9B (Oral): Harmful to human target organs or systems.
- 8.3A: Corrosive to ocular tissue.
- 9.3C: Harmful to terrestrial vertebrates.

COMPONENT CLASSIFICATION:

Labeling and Classification Full Text under GHS:

n-Butyl Alcohol: This is a published-classification.

Classification: Flammable Liquid Category 3, Acute Oral Toxicity Category 4, Eye Damage Category 1, Skin Irritation Category 2, Specific Target Organ Toxicity (Inhalation-Irritation) Single Exposure Category 3, Specific Target Organ Toxicity (Inhalation-Narcotic Effect) Single Exposure Category 3

Hazard Statements: H226: Flammable liquid and vapour. H302: Harmful if swallowed. H318: Causes serious eye damage. H315: Causes skin irritation. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness.

Ethylene Glycol Monobutyl Ether: This is a published-classification.

Classification: Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Acute Inhalation Category 4, Eye Irritation Category 2, Skin Irritation Category 2

Hazard Statements: H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H319: Causes serious eye irritation. H315: Causes skin irritation.



16. OTHER INFORMATION (Continued)

COMPONENT CLASSIFICATION (continued):

Labeling and Classification Full Text under GHS (continued):

Primary Alkyl Alcohol: This is a published-classification.

Classification: Flammable Liquid Category 2, Acute Oral Toxicity Category 3, Acute Dermal Toxicity Category 3, Acute Inhalation Toxicity Category 3, STOT (Ingestion-Eye) SE Category 1

Hazard Statements: H225: Highly flammable liquid and vapour. H301 + H311 + H331: Toxic if swallowed, in contact with skin or if inhaled. H370: Causes damage to organs.

Cyclic Secondary Amine: This is a published-classification.

Classification: Flammable Liquid Category 3, Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Acute Inhalation Toxicity Category 4, Skin Corrosion Category 1B

Hazard Statements: H226: Flammable liquid and vapour. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H314: Causes severe skin burns and eye damage.

Alkenoic Acid: This is a self-classification.

Classification: Skin Irritation Category. 2

Hazard Statements: H315: Causes skin irritation.

Labeling and Classification Full Text under EU 67/548/EEC:

n-Butyl Alcohol: This is a published-classification.

Classification: Flammable, Harmful, Irritant

Risk Phrases: R10: Flammable. R22: Harmful if swallowed. R37/38: Irritating to respiratory system and skin. R41: Limited evidence of a carcinogenic effect. R67: Vapours may cause drowsiness and dizziness.

Ethylene Glycol Monobutyl Ether: This is a published-classification.

Classification: Harmful, Irritant

Risk Phrases: R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R36/38: Irritating to eyes and skin.

Primary Alkyl Alcohol: This is a published-classification.

Classification: Flammable, Toxic

Risk Phrases: R11: Highly Flammable. R23/24/25: Toxic by inhalation, in contact with skin and if swallowed. R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Cyclic Secondary Amine: This is a published-classification.

Classification: Flammable, Harmful, Corrosive

Risk Phrases: R10: Flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R34: Causes burns.

Alkenoic Acid: This is a self-classification.

Classification: Irritant

Risk Phrases: R38:

New Zealand HSNO COP 8-1 09-06: The following are classifications under HSNO for components in pure form. These classifications do not apply to the product. Refer to Section 2 for product classification.

n-Butyl Alcohol:

3.1C: Flammable Liquids: medium hazard

6.1D (Oral): Acutely toxic

6.1E (Dermal, Inhalation): Acutely toxic.

6.3A: Irritating to the skin.

8.3A: Corrosive to ocular tissue.

9.3C: Harmful to terrestrial vertebrates

Ethylene Glycol Monobutyl Ether:

3.1D: Flammable Liquids: low hazard.

6.1D (Oral, Inhalation): Acutely toxic.

6.1D (Dermal): Acutely toxic.

6.3B: Mildly irritating to the skin.

6.4A: Irritating to the eye.

9.3C: Harmful to terrestrial vertebrates.

Primary Alkyl Alcohol:

3.1B: Flammable Liquids: High hazard.

6.1C (Oral, Dermal, Inhalation): Acutely toxic.

6.4C: Irritating to the eye.

6.8B: Suspected human reproductive or developmental toxicants.

6.9A (Inhalation): Toxic to human target organs or systems.

9.3C: Harmful to terrestrial vertebrates.

Cyclic Secondary Amine:

3.1C: Flammable Liquids: medium hazard.

6.1C (Oral, Dermal, Inhalation): Acutely toxic.

6.9A (Inhalation): Toxic to human target organs or systems.

6.9B (Oral): Harmful to human target organs or systems.

8.1A: Corrosive to metals.

8.2A: Corrosive to dermal tissue.

8.3A: Corrosive to ocular tissue.

9.1C (Fish, Crustacean, Algal): Harmful in the aquatic environment.

9.2C: Harmful in the soil environment.

9.3B: Ecotoxic to terrestrial vertebrates.

Alkenoic Acid:

6.3A: Irritating to the skin.

6.4A: Irritating to the eye.



16. OTHER INFORMATION (Continued)

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Kinetic Fuel Technology Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this product is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

REVISIONS DETAILS: May 2014: Up-date of entire SDS for compliance with additional country regulations.

REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Bridging principles were used to classify this product.

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc. • PO Box 1961, Hilo, HI 96721 • 800-441-3365 • 808-969-4846

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DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these, which are commonly used, include the following:

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:

CEILING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

DFG MAK Germ Cell Mutagen Categories: 1: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed humans. 2: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed mammals. 3A: Substances that have been shown to induce genetic damage in germ cells of human of animals, or which produce mutagenic effects in somatic cells of mammals *in vivo* and have been shown to reach the germ cells in an active form. 3B: Substances that are suspected of being germ cell mutagens because of their genotoxic effects in mammalian somatic cell *in vivo*; in exceptional cases, substances for which there are no *in vivo* data, but that are clearly mutagenic *in vitro* and structurally related to known *in vivo* mutagens. 4: Not applicable (Category 4 carcinogenic substances are those with non-genotoxic mechanisms of action. By definition, germ cell mutagens are genotoxic. Therefore, a Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA [e.g. purely aneugenic substances] if research results make this seem sensible. 5: Germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their contribution to genetic risk for humans is expected not to be significant.

DFG MAK Pregnancy Risk Group Classification: Group A: A risk of damage to the developing embryo or fetus has been unequivocally demonstrated. Exposure of pregnant women can lead to damage of the developing organism, even when MAK and BAT (Biological Tolerance Value for Working Materials) values are observed. **Group B:** Currently available information indicates a risk of damage to the developing embryo or fetus must be considered to be probable. Damage to the developing organism cannot be ruled out when pregnant women are exposed, even when MAK and BAT values are observed. **Group C:** There is no reason to fear a risk of damage to the developing embryo or fetus when MAK and BAT values are observed. **Group D:** Classification in one of the groups A-C is not yet possible because, although the data available may indicate a trend, they are not sufficient for final evaluation.

IDLH: Immediately Dangerous to Life and Health. This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury.

LOQ: Limit of Quantitation.

MAK: Federal Republic of Germany Maximum Concentration Values in the workplace.

NE: Not Established. When no exposure guidelines are established, an entry of NE is made for reference.

NIC: Notice of Intended Change.

NIOSH CEILING: The exposure that shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, the ceiling shall be assumed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during a workday.

NIOSH RELS: NIOSH's Recommended Exposure Limits.

PEL: OSHA's Permissible Exposure Limits. This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL" is placed next to the PEL that was vacated by Court Order.

SKIN: Used when there is a danger of cutaneous absorption.

STEL: Short Term Exposure Limit, usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during a workday, even if the 8-hr TWA is within the TLV-TWA, PEL-TWA or REL-TWA.

TLV: Threshold Limit Value. An airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour.

TWA: Time Weighted Average exposure concentration for a conventional 8-hr (TLV, PEL) or up to a 10-hr (REL) workday and a 40-hr workweek.

WEEL: Workplace Environmental Exposure Limits from the AHA.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD

RATINGS: This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards.

HEALTH HAZARD: 0 Minimal Hazard: No significant health risk, irritation of skin or eyes not anticipated. *Skin Irritation:* Essentially non-irritating. Mechanical irritation may occur. PII or Draize = 0. *Eye Irritation:* Essentially non-irritating, minimal effects clearing in < 24 hrs. Mechanical irritation may occur. Draize = 0. *Oral Toxicity LD₅₀ Rat:* > 5000 mg/kg. *Inhalation Toxicity LD₅₀ Rat or Rabbit:* > 2000 mg/kg. *Inhalation Toxicity 4-hrs LC₅₀ Rat:* > 20

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 1 Slight Hazard: Minor, reversible injury may occur; may irritate the stomach if swallowed; may defat the skin and exacerbate existing dermatitis. *Skin Irritation:* Slightly or mildly irritating. PII or Draize > 0 < 5. *Eye Irritation:* Slightly to mildly irritating, but reversible within 7 days. Draize > 0 ≤ 25. *Oral Toxicity LD₅₀ Rat:* > 500–5000 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 1000–2000 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 2–20 mg/L. 2 Moderate Hazard: Temporary or transitory injury may occur; prolonged exposure may affect the CNS. *Skin Irritation:* Moderately irritating; primary irritant; sensitizer. PII or Draize ≥ 5, with no destruction of dermal tissue. *Eye Irritation:* Moderately to severely irritating; reversible corneal opacity; corneal involvement or irritation clearing in 8–21 days. Draize = 26–100, with reversible effects. *Oral Toxicity LD₅₀ Rat:* > 50–500 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 200–1000 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 0.5–2 mg/L. 3 Serious Hazard: Major injury likely unless prompt action is taken and medical treatment is given; high level of toxicity; corrosive. *Skin Irritation:* Severely irritating and/or corrosive; may cause destruction of dermal tissue, skin burns, and dermal necrosis. PII or Draize > 5–8, with destruction of tissue. *Eye Irritation:* Corrosive, irreversible destruction of ocular tissue; corneal involvement or irritation persisting for more than 21 days. Draize > 80 with effects irreversible in 21 days. *Oral Toxicity LD₅₀ Rat:* > 1–50 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* > 20–200 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* > 0.05–0.5 mg/L. 4 Severe Hazard: Life-threatening; major or permanent damage may result from single or repeated exposure; extremely toxic; irreversible injury may result from brief contact. *Skin Irritation:* Not appropriate. Do not rate as a 4, based on skin irritation alone. *Eye Irritation:* Not appropriate. Do not rate as a 4, based on eye irritation alone. *Oral Toxicity LD₅₀ Rat:* ≤ 1 mg/kg. *Dermal Toxicity LD₅₀ Rat or Rabbit:* ≤ 20 mg/kg. *Inhalation Toxicity LC₅₀ 4-hrs Rat:* ≤ 0.05 mg/L.

FLAMMABILITY HAZARD: 0 Minimal Hazard: Materials that will not burn in air when exposure to a temperature of 815.5°C (1500°F) for a period of 5 minutes. 1 Slight Hazard: Materials that must be pre-heated before ignition can occur. Material requires considerable pre-heating, under all ambient temperature conditions before ignition and combustion can occur. This usually includes the following: Materials that will burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes or less; Liquids, solids and semisolids having a flash point at or above 93.3°C (200°F) (i.e. OSHA Class III-B); and Most ordinary combustible materials (e.g. wood, paper, etc.). 2 Moderate Hazard: Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not, under normal conditions, form hazardous atmospheres in air, but under high ambient temperatures or moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres with air. This usually includes the following: Liquids having a flash-point at or above 37.8°C (100°F); Solid materials in the form of coarse dusts that may burn rapidly but that generally do not form explosive atmospheres; Solid materials in a fibrous or shredded form that may burn rapidly and create flash fire hazards (e.g. cotton, sisal, hemp); and Solids and semisolids (e.g. viscous and slow flowing as asphalt) that readily give off flammable vapors. 3 Serious Hazard: Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. This usually includes the following: Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 38°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (100°F) (i.e. OSHA Class IB and IC); Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air (e.g., dusts of combustible solids, mists or droplets of flammable liquids); and Materials that burn extremely rapidly, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). 4 Severe Hazard: Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air, and that will burn readily. This usually includes the following: Flammable gases; Flammable cryogenic materials; Any liquid or gaseous material that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. OSHA Class IA); and Materials that ignite spontaneously when exposed to air at a temperature of 54.4°C (130°F) or below (pyrophoric).

PHYSICAL HAZARD: 0 Water Reactivity: Materials that do not react with water. *Organic Peroxides:* Materials that are normally stable, even under fire conditions and will not react with water. *Explosives:* Substances that are Non-Explosive. *Compressed Gases:* No Rating. *Pyrophorics:* No Rating. *Oxidizers:* No 0 rating. *Unstable Reactives:* Substances that will not polymerize, decompose, condense, or self-react. 1 Water Reactivity: Materials that change or decompose upon exposure to moisture. *Organic Peroxides:* Materials that are normally stable, but can become unstable at high temperatures and pressures. These materials may react with water, but will not release energy violently. *Explosives:* Division 1.5 & 1.6 explosives. Substances that are very insensitive explosives or that do not have a mass explosion hazard. *Compressed Gases:* Pressure below OSHA definition. *Pyrophorics:* No Rating.



DEFINITION OF TERMS (Continued)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

PHYSICAL HAZARD (continued): 1 (continued): Oxidizers: Packaging Group III oxidizers; liquids: any material that in either concentration tested, exhibits a mean burning time less than or equal to the mean burning time of a 3:7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65%) / cellulose mixture and the criteria for Packing Group I and II are not met. **Unstable Reactives:** Substances that may decompose, condense, or self-react, but only under conditions of high temperature and/or pressure and have little or no potential to cause significant heat generation or explosion hazard. Substances that readily undergo hazardous polymerization in the absence of inhibitors. Substances that readily undergo hazardous polymerization in the absence of inhibitors. **2 Water Reactivity:** Materials that may react violently with water. **Organic Peroxides:** Materials that, in themselves, are normally unstable and will readily undergo violent chemical change, but will not detonate. These materials may also react violently with water. **Explosives:** Division 1.4 explosives. Explosive substances where the explosive effects are largely confined to the package and no projection of fragments of appreciable size or range are expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. **Compressed Gases:** Pressurized and meet OSHA definition but < 514.7 psi absolute at 21.1°C (70°F) [500 psig]. **Pyrophorics:** No Rating. **Oxidizers:** Packaging Group II oxidizers. Solids: any material that, either in concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 2:3 potassium bromate/cellulose mixture and the criteria for Packing Group I are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise of a 1:1 aqueous sodium chlorate solution (40%) / cellulose mixture and the criteria for Packing Group I are not met. **Reactive:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a low potential (or low risk) for significant heat generation or explosion. Substances that readily form peroxides upon exposure to air or oxygen at room temperature. **3 Water Reactivity:** Materials that may form explosive reactions with water. **Organic Peroxides:** Materials that are capable of detonation or explosive reaction, but require a strong initiating source or must be heated under confinement before initiation; or materials that react explosively with water. **Explosives:** Division 1.3 explosives. Explosive substances that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but do not have a mass explosion hazard. **Compressed Gases:** Pressure ≥ 514.7 psi absolute at 21.1°C (70°F) [500 psig]. **Pyrophorics:** No Rating. **Oxidizers:** Packaging Group I oxidizers. Solids: any material that, in either concentration tested, exhibits a mean burning time less than the mean burning time of a 3:2 potassium bromate/cellulose mixture. Liquids: any material that spontaneously ignites when mixed with cellulose in a 1:1 ratio, or which exhibits a mean pressure rise time less than the pressure rise time of a 1:1 perchloric acid (50%) / cellulose mixture. **Unstable Reactives:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure and have a moderate potential (or moderate risk) to cause significant heat generation or explosion. **4 Water Reactivity:** Materials that react explosively with water without requiring heat or confinement. **Organic Peroxides:** Materials that are readily capable of detonation or explosive decomposition at normal temperature and pressures. **Explosives:** Division 1.1 & 1.2 explosives. Explosive substances that have a mass explosion hazard or have a projection hazard. A mass explosion is one that affects almost the entire load instantaneously. **Compressed Gases:** No Rating. **Pyrophorics:** Add to the definition of Flammability 4. **Oxidizers:** No 4 rating. **Unstable Reactives:** Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure and have a high potential (or high risk) to cause significant heat generation or explosion.

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

HEALTH HAZARD: 0 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 10,000 ppm. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 200 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 2000 mg/kg. Materials with an LD₅₀ for acute oral toxicity greater than 2000 mg/kg. Materials essentially non-irritating to the respiratory tract, eyes, and skin. 1 Materials that, under emergency conditions, can cause significant irritation. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 5,000 ppm but less than or equal to 10,000 ppm. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 10 mg/L but less than or equal to 200 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 1000 mg/kg but less than or equal to 2000 mg/kg. Materials that slightly to moderately irritate the respiratory tract, eyes and skin. Materials with an LD₅₀ for acute oral toxicity greater than 500 mg/kg but less than or equal to 2000 mg/kg. 2 Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 3,000 ppm but less than or equal to 5,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 5000 ppm and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 2 mg/L but less than or equal to 10 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 200 mg/kg but less than or equal to 1000 mg/kg. Compressed liquefied gases with boiling points between -30°C (-22°F) and -55°C (-66.5°F) that cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Materials that cause severe, but reversible irritation to the eyes or are lachrymators. Materials that are primary skin irritants or sensitizers. Materials whose LD₅₀ for acute oral toxicity is greater than 50 mg/kg but less than or equal to 500 mg/kg. 3 Materials that, under emergency conditions, can cause serious or permanent injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 1,000 ppm but less than or equal to 3,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 3000 ppm and that does not meet the criteria for degree of hazard 4. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 0.5 mg/L but less than or equal to 2 mg/L. Materials with an LD₅₀ for acute dermal toxicity greater than 40 mg/kg but less than or equal to 200 mg/kg.

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 3 (continued): Materials that are corrosive to the respiratory tract. Materials that are corrosive to the eyes or cause irreversible corneal opacity. Materials corrosive to the skin. Cryogenic gases that cause frostbite and irreversible tissue damage. Compressed liquefied gases with boiling points below -55°C (-66.5°F) that cause frostbite and irreversible tissue damage. Materials with an LD₅₀ for acute oral toxicity greater than 5 mg/kg but less than or equal to 50 mg/kg. 4 Materials that, under emergency conditions, can be lethal. Gases with an LC₅₀ for acute inhalation toxicity less than or equal to 1,000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than ten times its LC₅₀ for acute inhalation toxicity, if its LC₅₀ is less than or equal to 1000 ppm. Dusts and mists whose LC₅₀ for acute inhalation toxicity is less than or equal to 0.5 mg/L. Materials whose LD₅₀ for acute dermal toxicity is less than or equal to 40 mg/kg. Materials whose LD₅₀ for acute oral toxicity is less than or equal to 5 mg/kg.

FLAMMABILITY HAZARD: 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. 1 Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Materials that will burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. Liquids, solids, and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIB liquids). Liquids with a flash point greater than 35°C (95°F) that do not sustain combustion when tested using the *Method of Testing for Sustained Combustibility*, per 49 CFR 173, Appendix H or the UN *Recommendations on the Transport of Dangerous Goods, Model Regulations* (current edition) and the related *Manual of Tests and Criteria* (current edition). Liquids with a flash point greater than 35°C (95°F) in a water-miscible solution or dispersion with a water non-combustible liquid/solid content of more than 85% by weight. Liquids that have no fire point when tested by ASTM D 92, *Standard Test Method for Flash and Fire Points by Cleveland Open Cup*, up to the boiling point of the liquid or up to a temperature at which the sample being tested shows an obvious physical change. Combustible pellets with a representative diameter of greater than 2 mm (10 mesh). Most ordinary combustible materials. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 2 Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air. Liquids having a flash point at or above 37.8°C (100°F) and below 93.4°C (200°F) (i.e. Class II and Class IIIA liquids.) Solid materials in the form of powders or coarse dusts of representative diameter between 420 microns (40 mesh) and 2 mm (10 mesh) that burn rapidly but that generally do not form explosive mixtures with air. Solid materials in fibrous or shredded form that burn rapidly and create flash fire hazards, such as cotton, sisal, and hemp. Solids and semisolids that readily give off flammable vapors. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 3 Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures, are readily ignited under almost all conditions. Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 37.8°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (100°F) (i.e. Class IB and IC liquids). Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air. Flammable or combustible dusts with representative diameter less than 420 microns (40 mesh). Materials that burn with extreme rapidity, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 4 Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent.

INSTABILITY HAZARD: 0 Materials that in themselves are normally stable, even under fire conditions. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL. Materials that do not exhibit an exotherm at temperatures less than or equal to 500°C (932°F) when tested by differential scanning calorimetry. 1 Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 10 W/mL. 2 Materials that readily undergo violent chemical change at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/mL and below 100 W/mL. 3 Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 100 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. 4 Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater.



DEFINITION OF TERMS (Continued)

FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). **Flash Point:** Minimum temperature at which a liquid gives sufficient vapor to form an ignitable mixture with air near the surface of the liquid or in the test vessel used. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate or cause self-sustained combustion in air with no other source of ignition. **LEL:** Lowest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame. **UEL:** Highest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. **LD₅₀:** Lethal Dose (solids & liquids) that kills 50% of the exposed animals. **LC₅₀:** Lethal Concentration (gases) that kills 50% of the exposed animals. **ppm:** Concentration expressed in parts of material per million parts of air or water. **mg/m³:** Concentration expressed in weight of substance per volume of air. **mg/kg:** Quantity of material, by weight, administered to a test subject, based on their body weight in kg. **TDL₀:** Lowest dose to cause a symptom. **TCL₀:** Lowest concentration to cause a symptom. **TDL₀, LDLo, and LDo,** or **TC, TCo, LCLo, and LCo:** Lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** **IARC:** International Agency for Research on Cancer. **NTP:** National Toxicology Program. **RTECS:** Registry of Toxic Effects of Chemical Substances. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI:** ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV.

REPRODUCTIVE TOXICITY INFORMATION: A **mutagen** is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An **embryo toxin** is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance that interferes in any way with the reproductive process.

ECOLOGICAL INFORMATION:

EC: Effect concentration in water. **BCF:** Bioconcentration Factor, which is used to determine if a substance will concentrate in life forms that consume contaminated plant or animal matter. **TLm:** Median threshold limit. **log K_{ow}** or **log K_{oc}:** Coefficient of Oil/Water Distribution is used to assess a substance's behavior in the environment.

REGULATORY INFORMATION:

U.S.:

EPA: U.S. Environmental Protection Agency. **ACGIH:** American Conference of Governmental Industrial Hygienists, a professional association that establishes exposure limits. **OSHA:** U.S. Occupational Safety and Health Administration. **NIOSH:** National Institute of Occupational Safety and Health, which is the research arm of OSHA. **DOT:** U.S. Department of Transportation. **TC:** Transport Canada. **SARA:** Superfund Amendments and Reauthorization Act. **TSCA:** U.S. Toxic Substance Control Act. **CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollutant status according to the DOT, CERCLA or Superfund; and various state regulations. This section also includes information on the precautionary warnings that appear on the material's package label.

CANADA:

WHMIS: Canadian Workplace Hazardous Materials Information System. **TC:** Transport Canada. **DSL/NDSL:** Canadian Domestic/Non-Domestic Substances List.

MATERIAL SAFETY DATA SHEET**SECTION I****PART NUMBER SR-216 PART A, ALMOND BATH/TUB REPAIR KIT**

SUPPLIERS NAME: ITW PERFORMANCE POLYMERS CONSUMER DIVISION
 SYON CORPORATION
 2107 WEST BLUE HERON BLVD.
 RIVIERA BEACH, FL 33404

EMERGENCY TELEPHONE NUMBER: Chem Trec: 800-424-9300

REVISED: June 2000

SECTION II**PRODUCT IDENTIFICATION**

TRADE NAME: SR-216 Part A, Almond Bath/Tub Repair Kit
 CHEMICAL NAME: Bisphenol A/Epichlorohydrin Based Epoxy Resin
 CHEMICAL FAMILY: Epoxy Resins

<u>Acute Health</u>	<u>Fire</u>	<u>Reactivity</u>
2	1	0

HAZARD RATING:

Least - 0; Slight - 1; Moderate - 2; High - 3; Extreme - 4
 For chronic and health effects refer to Section III.

SECTION II-A**PRODUCT /INGREDIENT**

<u>NO.</u>	<u>COMPOSITION</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>
P	SR-216, Part A	N/A	100%
1	Bisphenol A/Epichlorohydrin Based Epoxy Resin	25068-38-6	>90

This product contains an Epoxy Resin produced by the condensation reaction of Epichlorohydrin and Bisphenol-A. These raw materials are consumed in the process. Residual levels of Epichlorohydrin are controlled to 1 PPM, max. in the product.

SECTION II-B**ACUTE TOXICITY DATA**

<u>NO.</u>	<u>Acute Oral LD50</u>	<u>ACUTE DERMAL LD50</u>	<u>Acute Inhalation LC50</u>
1	11.4 g/kg (rat)	>20 ml/Kg (rabbit)	No Deaths in Sat'd Air, 8 hr*
1	15.6 g/Kg (mouse)		

*This inhalation test may not be relevant due to low volatility of the resin.

SECTION III**HEALTH INFORMATION**

The health effects noted below are consistent with requirements under the OSHA Hazard Communications Standard (29 CFR 1910.1200).

EYE CONTACT: Based on product testing product is moderately irritating to the eyes. Contact with product at elevated temperatures can result in thermal burns.

SKIN CONTACT: Based on product testing product is moderately irritating to the skin. Based on product testing product may cause skin sensitization. Contact with product at elevated temperatures can result in thermal burns.

INHALATION: Because of its low volatility this product is not likely to be an inhalation hazard.

INGESTION: Based on product testing, product is considered to have a low order of acute oral toxicity.

SIGNS AND SYMPTOMS:

Irritation as noted above. Skin sensitization (Allergy) may be evidenced by rashes, especially hives.

AGGRAVATED MEDICAL CONDITIONS:

Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

OTHER HEALTH EFFECTS:

See Section VI for supplemental health information.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

No OSHA nor ACGIH limits have been established for this product.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention. If contact with hot product occurs immediately flush with cool water for 15 minutes. Get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. If contact with hot product occurs immediately flush with cool water for 15 minutes. Carefully remove clothing. If clothing is stuck to a burn area Do Not pull it off, but cut around it. Cover burn area with a clean material. Get medical attention.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

INGESTION: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.*

NOTE TO PHYSICIAN:

*In general, emesis induction is unnecessary in high viscosity, low volatility products, e.g., neat epoxy resins.

SECTION VI SUPPLEMENT HEALTH INFORMATION

CHRONIC STUDIES: Recent 2-Year Bioassays in mice exposed by the dermal route to Component 1, the Diglycidyl Ether of Bisphenol A (DGEbPA), or to other commercial resins which are composed predominantly of DGEbPA have yielded very limited evidence of weak carcinogenicity. DGEbPA is a component of this resin. The authors of this work concluded that the renal tumor evidence with Component 1 "was of no biological importance" and that the resin "is not a systemic carcinogen when applied to the dorsal skin of CF 1 mice." Based upon this and all other available information, the International Agency for Research on Cancer (IARC) concluded (1988) that DGEbPA was not classifiable as a carcinogen (IARC Group 3) based on the following: Human Evidence - inadequate; Animal Evidence - Inadequate.

UTAGENICITY: Both Component 1 and DGEbPA, a component of Component 1, have proved to be inactive

when tested by in vivo mutagenicity assays. They have both shown activity by in vitro microbial mutagenicity screening and have both produced chromosomal aberrations in cultured rat liver cells. The significance of this formation to man is unknown.

SECTION VII **PHYSICAL DATA**

BOILING POINT:	>500°F	MELTING POINT:	Not Available
EVAPORATION RATE:	Not Applicable	SPECIFIC GRAVITY:	1.17 (H ₂ O=1)
SOLUBILITY IN WATER:	Negligible	VAPOR PRESSURE:	0.03 mm Hg
VAPOR DENSITY:	Not Applicable		
APPEARANCE AND ODOR:	Almond Color, Odorless		

SECTION VIII **FIRE & EXPLOSION HAZARD DATA**

FLASH POINT AND METHOD: 480°F PMCC

EXTINGUISHING MEDIA: Water Fog, Foam, Dry Chemical, CO₂

SPECIAL FIRE FIGHTING PROCEDURES: Material will not burn unless preheated. Do Not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

FLAMMABLE LIMITS: Lel - N/AV; Uel - N/AV

UNUSUAL FIRE & EXPLOSION HAZARDS: See Section XII

SECTION IX **REACTIVITY**

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS AND MATERIALS TO AVOID: Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases/especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat. Run-a-way cure reactions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic. See Section XII.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Aldehydes, Acids and other organic substances may be formed during combustion or elevated (>500°F) temperature degradation. See Section XII.

SECTION X **EMPLOYEE PROTECTION**

RESPIRATORY PROTECTION: Not ordinarily required.

PROTECTIVE CLOTHING: Avoid contact with eyes. Wear safety glasses or goggles as appropriate. Avoid prolonged or repeated contact with skin. Wear chemical resistant gloves and other clothing as required to minimize contact.

SECTION XI **ENVIRONMENTAL PROTECTION**

SPILL OR LEAK PROCEDURES:

May burn although not readily ignitable. Use cautious judgement when cleaning up large spills.

*** LARGE SPILLS*** Wear respirator and protective clothing as appropriate. Shut off source of leak only if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers and seal tightly for proper disposal. Flush area with water to remove trace residue; dispose of flush solution as above.

*SMALL SPILLS*** Take up with an absorbent material and place in non-leaking containers for proper disposal.

SECTION XII **SPECIAL PRECAUTIONS**

Store in a cool, dry place. Keep away from open flames and high temperatures.

Containers, even those that have been emptied, can contain hazardous product residues. Handle in accordance with the hazard potential of curing agent(s) used. Caution: May cause irritation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.

Heating this resin above 300°F in the presence of air may cause slow oxidative decomposition above 500°F, polymerization may occur. Some agents, e.g., Aliphatic Polyamines can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do Not breath fumes.

Use a NIOSH approved respirator as required to prevent over exposure. In accordance with 20 CFR 1910.134, use either an atmosphere-supply respirator or an air-purifying respirator for organic vapors. If this resin is handled, shipped, or stored in bulk, the recommended pumping temperature is 180°F, max. to prevent thermal burns, avoid skin and eye contact with hot liquid.

SECTION XIII **TRANSPORTATION REQUIREMENTS**

D.O.T. CLASSIFICATION: Not hazardous by D.O.T. regulations
D.O.T. PROPER SHIPPING NAME: Not regulated
OTHER REQUIREMENTS: N/A

SECTION XIV **OTHER REGULATORY CONTROLS**

This product is listed on the EPA/TSCA inventory of chemical substances.

Protection of stratospheric ozone (pursuant to Section 611 of the clean air act amendments of 1990): per 40 CFR Part 82, this product does not contain nor was it directly manufactured with any class I or class II ozone depleting substances.

In accordance with SARA Title III, Section 313, the attached environmental data sheet (EDS) should always be copied and sent with the MSDS.

SECTION XV **STATE REGULATORY INFORMATION**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>State Listed Component</u>	<u>Percent</u>	<u>State Code</u>
Diglycidyl Ether (CAS #: 2238-07-5)	2 PPM	MA
Phenyl Glycidyl Ether (CAS #: 122-60-1)	6 PPM	CA65C

CA65C = California Safe Drinking Water and Toxics Enforcement Act List or Proposition 65 List
MA = Massachusetts Substance List

This product contains a chemical or chemicals known to the state of California to cause cancer.

SECTION XVI **SPECIAL NOTES**

See Environmental Data Sheet for waste disposal and other environmental information.

***** ENVIRONMENTAL DATA SHEET *****

SECTION I **PRODUCT COMPOSITION**

Bisphenol A/Epichlorohydrin Epoxy Resin CAS #: 25068-38-6 >90%

SECTION II **SARA TITLE III INFORMATION**

Bisphenol A/Epichlorohydrin Epoxy Resin 311/312 CATEGORY: Immediate (Acute) Health Hazard

SECTION III **ENVIRONMENTAL RELEASE INFORMATION**

Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public occurs or is likely to occur.

SECTION IV **RCRA INFORMATION**

If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with local regulations.

All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by SYON Corporation as to the effects of such use, the results obtained, or the safety and toxicity of the product nor does SYON Corporation assume any liability arising out of use, by others of the product referred to herein. This information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

MATERIAL SAFETY DATA SHEET**SECTION I** **PART NUMBER SR-216 PART B, ALMOND BATH/TUB REPAIR KIT**

SUPPLIERS NAME: ITW PERFORMANCE POLYMERS CONSUMER DIVISION
 SYON CORPORATION
 2107 WEST BLUE HERON BLVD.
 RIVIERA BEACH, FL 33404

EMERGENCY TELEPHONE NUMBER: Chem Trec: 800-424-9300

REVISED: June 2000

SECTION II **PRODUCT IDENTIFICATION**

TRADE NAME: SR-216 Almond Bath/Tub Repair Kit Part B
 CHEMICAL FAMILY: Epoxy Curing Agents
 FORMULA: Proprietary

SECTION III **HAZARDOUS INGREDIENTS, percent & TLV**

This compound contains no materials identified as hazardous by either the Massachusetts Right to Know Law or by the OSHA Safety and Health Standards 29CFR1910 Subpart Z "Toxic and Hazardous Substances".

SECTION IV **PHYSICAL DATA**

BOILING POINT:	N/D	SPECIFIC GRAVITY:	1.15
MELTING POINT:	N/D	WATER MISCIBILITY:	Slight
VAPOR PRESSURE:	N/D	PERCENT VOLATILE:	0.3
VAPOR DENSITY:	N/D	EVAPORATION RATE:	NA
APPEARANCE & ODOR:	Clear White to Yellow Liquid; Mercaptan Odor		

SECTION V **FIRE & EXPLOSION HAZARD DATA**

FLASH POINT: 495°F COC
 EXTINGUISHING MEDIA: CO₂, Dry Chemical, Water Spray
 SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water. Use self contained breathing apparatus.
 FLAMMABLE LIMITS: Lel - NA; Uel - NA
 UNUSUAL FIRE & EXPLOSION HAZARDS: Water may spread fire (product floats on water).

SECTION VI **HEALTH HAZARD DATA**

SKIN AND EYE CONTACT: May cause eye and skin irritation on prolonged or repeated exposure. Protect eyes, skin and clothing from contact with product. Wash thoroughly after handling.

INHALATION: May be harmful if inhaled in large amounts or for prolonged periods. Do Not inhale product.

ORAL INGESTION: May be harmful if swallowed. Wash thoroughly after handling.

ROUTES OF EXPOSURE: Inhalation, Dermal, Oral

EMERGENCY & FIRST AID:

EYES: Flush immediately with plenty of water for at least 15 minutes.
 SKIN: Remove contaminated clothing. Wash with soap and water. Consult a physician if irritation persists.
 INHALATION: Remove to fresh air.
 INGESTION: Do not induce vomiting. Immediately drink a large quantity of milk or water and call a physician.

SECTION VII REACTIVITY DATA

STABILITY: Stable
 CONDITIONS TO AVOID: Storage at elevated temperatures over long periods of time.
 INCOMPATIBILITY: Strong oxidizing agents
 HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂, Oxides of Nitrogen, Oxides of Sulfur
 HAZARDOUS POLYMERIZATION: Will not occur
 CONDITIONS TO AVOID: Excessive exothermic heat when cured

SECTION VIII SPILL OR LEAK PROCEDURES

Wear appropriate protective clothing and respirator. Dike to contain (if large spill). Absorb spill with dry material. Scoop up excess and remove. Residual can be removed with nonflammable solvent. Flush area with water. Incinerate in accordance with local pollution regulations and ordinances.

SECTION IX SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved organic vapor respirator
 VENTILATION: Local exhaust
 OTHER PROTECTIVE EQUIPMENT: Impervious gloves, splash-proof goggles, safety shower, and eye wash facilities.

SECTION X HANDLING AND STORAGE

Do Not Store near epoxy resins.

SECTION XI TRANSPORTATION INFORMATION

D.O.T. HAZARDOUS MATERIALS: NOT REGULATED
 IMO SHIPPING DATA: NOT REGULATED
 ICAO/IATA SHIPPING DATA: Other Regulated Substance// 9 // ID 8027 (Due to Odor Only)
 EMERGENCY RESPONSE GUIDE NUMBER: 00
 HARMONIZE NUMBER: 2930.90.5050 0
 PACKAGING GROUP: None

SECTION XII**REGULATORY INFORMATION**

SCA: This product and/or all of its components are registered as required by TSCA.

(b) EXPORT NOTIFICATION: None

SARA TITLE III:

302EHS: None

302(CERCLA): None

311/312 Product Hazard Class: Acute N; Chronic N; Fire N; Sudden Release N; Reactive N

313 Toxic Chemicals: None

All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by SYON Corporation as to the effects of such use, the results obtained, or the safety and toxicity of the product nor does SYON Corporation assume any liability arising out of use, by others of the product referred to herein. This information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.



Revision Number: 002.0

Issue date: 03/20/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	OSI Quad Max Clear Window & Door Sealant	IDH number:	2445634
Product type/use:	Joint sealant, polymer silan-modified	Region:	United States
Restriction of Use:	None identified	Contact information:	Telephone: +1 (860) 571-5100
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887
		Internet:	www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: HARMFUL IF INHALED.

HAZARD CLASS

HAZARD CATEGORY

ACUTE TOXICITY INHALATION

4

PICTOGRAM(S)



Precautionary Statements

Prevention:	Avoid breathing dust or fumes. Use only outdoors or in a well-ventilated area.
Response:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
Storage:	Not prescribed
Disposal:	Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Trimethoxyvinylsilane	2768-02-7	1 - 5
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	52829-07-9	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

Exposure to moisture during cure will release 0.1 - 0.9% methanol.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Wash with soap and water. If skin irritation persists, call a physician. Wipe off paste with paper towel or cloth.
Eye contact:	Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. If symptoms develop and persist, get medical attention.
Ingestion:	Do not induce vomiting. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	carbon dioxide, foam, powder, water spray jet, fine water spray
Special firefighting procedures:	Wear protective equipment. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	None identified.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Store in a partly filled, closed container until disposal. Spilled material will solidify. Scrape up as much material as possible. Maintain good ventilation for large spills.

7. HANDLING AND STORAGE

Handling:	Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation. Avoid contact with eyes, skin and clothing. Keep out of the reach of children. Protect from moisture. Use only with adequate ventilation.
Storage:	For safe storage, store between -20 °C (-4°F) and 50 °C (122°F) Outside temperature limits, the product will be irreversibly damaged and no longer usable.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Trimethoxyvinylsilane	None	None	None	None
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	None	None	None	None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Solid

Color:

Transparent

Odor:

Alcohol

Odor threshold:

Not available.

pH:

Not applicable

Vapor pressure:

Not applicable

Boiling point/range:

Not applicable

Melting point/ range:

Not applicable

Specific gravity:

1.05

Vapor density:

Heavier than air.

Flash point:

Product is a solid.

Flammable/Explosive limits - lower:

Not available.

Flammable/Explosive limits - upper:

Not available.

Autoignition temperature:

Not applicable

Flammability:

Not applicable

Evaporation rate:

Not applicable

Solubility in water:

Insoluble

Partition coefficient (n-octanol/water):

Not available.

VOC content:

2.95 %; 53.3 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)

Viscosity:

Not available.

Decomposition temperature:

Not available.

10. STABILITY AND REACTIVITY

Stability:

Stable under normal conditions of storage and use.

Hazardous reactions:

Will not occur.

Hazardous decomposition products:

Methanol is liberated slowly upon exposure to moisture.

Incompatible materials:

Oxidizing agents.

Reactivity:

Not available.

Conditions to avoid:

Exposure to moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: May cause nose, throat and lung irritation.
Skin contact: Causes skin irritation.
Eye contact: Causes serious eye irritation.
Ingestion: May be harmful if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Trimethoxyvinylsilane	None	Irritant, Allergen
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	None	No Data

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Trimethoxyvinylsilane	No	No	No
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health
CERCLA/SARA Section 313:	None above reporting de minimis.
California Proposition 65:	This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 15

Prepared by: Product Safety and Regulatory Affairs

Issue date: 03/20/2019

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This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.

Safety Data Sheet



Revision Number: 007.0

Issue date: 09/07/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Quad Max Window, Door and Siding Sealant	IDH number:	2622496
Product type/use:	Joint sealant, polymer silan-modified	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Telephone:	+1 (860) 571-5100
		MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887
		Internet:	www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION.

	HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION		2
EYE IRRITATION		2A



Precautionary Statements

Prevention:	Wash affected area thoroughly after handling. Wear protective gloves, eye protection, and face protection.
Response:	IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	50 - 60
Phthalic acid, di(C9-11)alkylester, branched, C10-rich	68515-49-1	5 - 10
Benzene, mono-C10-13-alkyl derivs..	129813-58-7	1 - 5
Trimethoxyvinylsilane	2768-02-7	1 - 5
Benzene, mono-C12-14-alkyl derivs.	129813-59-8	1 - 5
Quartz (SiO2)	14808-60-7	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

Exposure to moisture during cure will release 0.1 - 0.9% methanol.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Wash with soap and water. If skin irritation persists, call a physician. Wipe off paste with paper towel or cloth.
Eye contact:	Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. If symptoms develop and persist, get medical attention.
Ingestion:	Do not induce vomiting. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	carbon dioxide, foam, powder, water spray jet, fine water spray
Special firefighting procedures:	Wear protective equipment. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	None identified.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Store in a partly filled, closed container until disposal. Spilled material will solidify. Scrape up as much material as possible. Maintain good ventilation for large spills.

7. HANDLING AND STORAGE

Handling:	Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation. Avoid contact with eyes, skin and clothing. Keep out of the reach of children. Protect from moisture. Use only with adequate ventilation.
Storage:	For safe storage, store between -20 °C (-4°F) and 50 °C (122°F) Store in a cool, dry area. Avoid moisture.
For information on product shelf life, please review labels on container or check the Technical Data Sheet.	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m3 TWA Inhalable particles. 3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 mg/m3 TWA Total dust. 15 MPPCF TWA Respirable fraction.	None	None
Phthalic acid, di(C9-11)alkylester, branched, C10-rich	None	None	None	None
Benzene, mono-C10-13-alkyl derivs.	None	None	None	None
Trimethoxyvinylsilane	None	None	None	None
Benzene, mono-C12-14-alkyl derivs.	None	None	None	None
Quartz (SiO2)	0.025 mg/m3 TWA Respirable fraction.	0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust. 2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable.	None	None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Color:
Odor:
Odor threshold:
pH:
Vapor pressure:
Boiling point/range:
Melting point/ range:
Specific gravity:
Vapor density:
Flash point:
Flammable/Explosive limits - lower:
Flammable/Explosive limits - upper:
Autoignition temperature:
Flammability:
Evaporation rate:
Solubility in water:
Partition coefficient (n-octanol/water):
VOC content:

Liquid
Various
Alcohol
Not available.
Not applicable
Not applicable
Not applicable
Not applicable
1.4 - 1.5 at 20 °C (68°F)
Heavier than air.
107 °C (224.6 °F) Seta closed cup
Not available.
Not available.
Not applicable
Not applicable
Not applicable
Insoluble
Not available.
2.48 %; 36 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
Not available.
Not available.

Viscosity:
Decomposition temperature:

IDH number: 2622496

Product name: Quad Max Window, Door and Siding Sealant

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Methanol is liberated slowly upon exposure to moisture.
Incompatible materials:	Oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Exposure to moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: May cause nose, throat and lung irritation. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.

Skin contact: Causes skin irritation.

Eye contact: Causes serious eye irritation.

Ingestion: May be harmful if swallowed.

Acute Inhalation product toxicity: The substance or mixture has no acute inhalation toxicity.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Phthalic acid, di(C9-11)alkylester, branched, C10-rich	None	Irritant
Benzene, mono-C10-13-alkyl derivs.	None	No Data
Trimethoxyvinylsilane	Inhalation LC50 (Rat, 4 h) = 2773 ppm	Irritant, Allergen
Benzene, mono-C12-14-alkyl derivs.	None	No Data
Quartz (SiO2)	None	Immune system, Lung. Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Phthalic acid, di(C9-11)alkylester, branched, C10-rich	No	No	No
Benzene, mono-C10-13-alkyl derivs.	No	No	No
Trimethoxyvinylsilane	No	No	No
Benzene, mono-C12-14-alkyl derivs.	No	No	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	Yes

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Delayed Health, Immediate Health
CERCLA/SARA Section 313: None above reporting de minimis.
California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 3, 8, 11, 13

Prepared by: Product Safety and Regulatory Affairs

Issue date: 09/07/2022

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.



Revision Number: 005.0

Issue date: 10/06/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE® 565™ PST® PIPE SEALANT THREAD SEALANT	IDH number:	88551
Product type:	Anaerobic Sealant	Item number:	56531
Restriction of Use:	None identified	Region:	United States
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Contact information:	Telephone: (860) 571-5100 MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: CAUSES SKIN IRRITATION.
CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS

HAZARD CATEGORY

SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention:	Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Wear protective gloves, eye protection, and face protection.
Response:	IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you feel unwell. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

IDH number: 88551

Product name: LOCTITE® 565™ PST® PIPE SEALANT THREAD SEALANT
Page 1 of 6

Hazardous Component(s)	CAS Number	Percentage*
Ethene, tetrafluoro-, homopolymer	9002-84-0	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Treated fumed silica	67762-90-7	1 - 5
Saccharin	81-07-2	1 - 5
Cumene hydroperoxide	80-15-9	1 - 5
Ethylene glycol	107-21-1	0.1 - 1
Cumene	98-82-8	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin contact:	Remove contaminated clothing and footwear. Wash clothing before reuse. Immediately flush skin with plenty of water (using soap, if available). Get medical attention.
Eye contact:	Get medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Ingestion:	Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.
Hazardous combustion products:	Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Toxic fluorine compounds. Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:

Keep container closed. Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.

Storage:

For safe storage, store at or below 38 °C (100.4 °F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ethene, tetrafluoro-, homopolymer	None	None	None	10 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 PEL Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Treated fumed silica	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Saccharin	None	None	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Ethylene glycol	25 ppm TWA Vapor fraction 50 ppm STEL Vapor fraction 10 mg/m3 STEL Aerosol, inhalable.	None	None	None
Cumene	50 ppm TWA	50 ppm (245 mg/m3) PEL (SKIN)	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene, Butyl-rubber, or nitrile-rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid, Paste
Color:	White
Odor:	Mild
Odor threshold:	Not available.
pH:	Not applicable
pH:	Not applicable
Vapor pressure:	< 5 mm hg (27 °C (80.6 °F))
Boiling point/range:	> 149 °C (> 300.2 °F)
Melting point/ range:	Not available.
Specific gravity:	1.1
Vapor density:	Not available.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.11 %; 1.06 g/l Method 40 CFR Part 63 Appendix A to Subpart PPPP
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Toxic fluorine compounds. Oxides of nitrogen. Oxides of sulfur. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
-------------------------------------	-----------------------------------

Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact: Causes skin irritation.
Eye contact: Causes serious eye irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Ethene, tetrafluoro-, homopolymer	None	No Target Organs
Titanium dioxide	None	Irritant, Respiratory, Some evidence of carcinogenicity
Treated fumed silica	None	Irritant
Saccharin	Oral LD50 (Mouse) = 17 g/kg	No Target Organs
Cumene hydroperoxide	Inhalation LC50 (Mouse, 4 h) = 200 mg/l	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Ethylene glycol	Oral LD50 (Rat) = 5.89 g/kg Oral LD50 (Mouse) = 14.6 g/kg Dermal LD50 (Rabbit) = 9,530 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Cumene	Oral LD50 (Rat) = 2.91 g/kg Oral LD50 (Rat) = 1,400 mg/kg Inhalation LC50 (Rat, 4 h) = 8000 ppm	Central nervous system, Irritant, Lung

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ethene, tetrafluoro-, homopolymer	No	No	No
Titanium dioxide	No	Group 2B	No
Treated fumed silica	No	No	No
Saccharin	No	No	No
Cumene hydroperoxide	No	No	No
Ethylene glycol	No	No	No
Cumene	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)
Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
DOT Hazardous Substance(s): alpha,alpha-Dimethylbenzylhydroperoxide

International Air Transportation (ICAO/IATA)

Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
 Hazard class or division: 9
 Identification number: UN 3082
 Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 Hazard class or division: 9
 Identification number: UN 3082
 Packing group: III

15. REGULATORY INFORMATION**United States Regulatory Information**

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: Ethene, tetrafluoro-, homopolymer (CAS# 9002-84-0).

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Saccharin (CAS# 81-07-2). Cumene hydroperoxide (CAS# 80-15-9).
CERCLA Reportable quantity: Cumene hydroperoxide (CAS# 80-15-9) 10 lbs. (4.54 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2

Prepared by: Product Safety and Regulatory Affairs

Issue date: 10/06/2017

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.



SAFETY DATA SHEET

HENG'S RUBBER ROOF COATING
46128-4, 46032

SECTION 1, COMPANY & PRODUCT IDENTIFICATION

COMPANY INFORMATION:

Heng's Industries
3500 Lexington Park Drive
Elkhart, IN 46514
Phone: 574-295-1200

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT NUMBER: 46128-4, 46032
PRODUCT DESCRIPTION: Water-Based Adhesive, Rubber Roof Coating

SECTION 2, HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

HMIS RATING: HEALTH - 0 FLAMMABILITY - 0 REACTIVITY - 0

See SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY:

EYE: No irritation hazard in normal industrial use.
SKIN: No irritation hazard in normal industrial use.
INHALATION: No irritation hazard in normal industrial use. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract. Prolonged Exposure may lead to inflammation & ulceration.
INGESTION: Ingestion is not an anticipated route of exposure.

LONG-TERM (CHRONIC) EFFECTS

TARGET ORGAN(S): No organs known to be damaged from exposure to this product.

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: No medical conditions affected by exposure.

SECTION 3, COMPOSITION/INFORMATION ON INGREDIENTS

Based on data available to Heng's Industries, none of the components in this product are considered hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200). The composition of this compound is proprietary information. In the event of a medical emergency, detailed information will be provided to a nurse or physician.

SECTION 4, FIRST AID MEASURES

IF IN EYES: Remove the substance from the eye(s), & immediately flush eye(s) with plenty of water while retracting eyelids often. If inflammation or blurred vision develops, seek medical attention & provide the medical care professional with this MSDS.
IF ON SKIN: Wash with soap & water.
IF VAPORS INHALED: Not an anticipated route of exposure. If dusts are produced by cutting or sanding this product, please consider improving work site ventilation.
IF SWALLOWED: No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with MSDS.

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SECTION 5, FIRE FIGHTING MEASURES

FLASH POINT: 212F
AUTOIGNITION TEMPERATURE: Not established
LOWER EXPLOSIVE LIMIT (% in air): Not established
UPPER EXPLOSIVE LIMIT (% in air): Not established
EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE & EXPLOSION HAZARDS: There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus & full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS: Carbon Dioxide, Carbon Monoxide

SECTION 6, ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7, HANDLING & STORAGE

Handling: No special handling instructions due to toxicity.
Storage: Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8, EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear goggles when handling this product.
SKIN PROTECTION: Protect skin accordingly if working in environments with elevated temperatures.
GLOVES: Not normally required. Use nitrile gloves if conditions warrant.
RESPIRATORY PROTECTION: Not normally required.
VENTILATION: Use local exhaust ventilation to minimize exposure.
HYGIENIC PRACTICES: Wash hands before eating, smoking or using the restroom.

EXPOSURE LIMITS: None applicable for this product when used for normal industrial applications. Avoid excessive & unnecessary exposure whenever possible. If deemed useful & essential for treatment, specific exposure limits of raw materials used during the manufacturing process will be provided to a nurse or physician.

SECTION 9, PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
COLOR: White
ODOR: Sweet, Mild
ODOR THRESHOLD: Not established
SPECIFIC GRAVITY: 1.12 - 1.19
SOLIDS (% by weight): 59-64%
pH: Not established
BOILING POINT (deg. C): Not established
FREEZING/MELTING POINT (deg. C): Not established
VAPOR PRESSURE (mmHg): Not established
VAPOR DENSITY: Not established
EVAPORATION RATE: Not established
OCTANOL/WATER COEFFICIENT: Not established

SECTION 10, STABILITY & REACTIVITY

STABILITY: Stable under normal conditions
CHEMICAL INCOMPATIBILITY: Not established
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide, Bromine containing gases

SECTION 11, TOXICOLOGICAL INFORMATION

Chemical Name	LD50/LC50
Zinc Oxide	Oral LD50 Mouse > 950 mg/kg

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 12, ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available.

SECTION 13, DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulation 40 CFR 261. Dispose of in accordance with federal, state & local law. Consult your state, local or provincial authorities & your local waste vendor for more restrictive requirements.

SECTION 14, TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

SECTION 15, REGULATORY INFORMATION

INVENTORY STATUS:

U.S. EPA TSCA: This product is in compliance with the Toxic Substance Control Act's Inventory requirements.

If you need more information about the inventory status of this product, call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental protection Agency, the Bureau of Industry & Security or the Drug Enforcement Administration, among others.)

FEDERAL REPORTING:

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 (SARA) & 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%

CANADIAN WHMIS STATUS: To the best of my knowledge, this material is classified as a NON-CONTROLLED PRODUCT.

SECTION 16, OTHER INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety & Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910. 1200).

Prepared by: Heng's Industries 04/01/2016
Phone: 574-295-1200

The information & recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Heng's Industries from its suppliers & because Heng's Industries has no control over the conditions of handling & use, Heng's Industries makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information & consideration & Heng's Industries assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Heng's Industries products to comply with all applicable federal, state & local laws & regulations.



SAFETY DATA SHEET

HENG'S RUBBER ROOF COATING
46128-4, 46032

SECTION 1. COMPANY & PRODUCT IDENTIFICATION

COMPANY INFORMATION:

Heng's Industries

3500 Lexington Park Drive

Elkhart, IN 46514

Phone: 574-295-1200

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT NUMBER:

46128-4, 46032

PRODUCT DESCRIPTION:

Water-Based Adhesive, Rubber Roof Coating

SECTION 2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

HMIS RATING: HEALTH - 0

FLAMMABILITY - 0

REACTIVITY - 0

See SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY:

EYE: No irritation hazard in normal industrial use.

SKIN: No irritation hazard in normal industrial use.

INHALATION: No irritation hazard in normal industrial use. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract. Prolonged Exposure may lead to inflammation & ulceration.

INGESTION: Ingestion is not an anticipated route of exposure.

LONG-TERM (CHRONIC) EFFECTS

TARGET ORGAN(S): No organs known to be damaged from exposure to this product.

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: No medical conditions affected by exposure.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Based on data available to Heng's Industries, none of the components in this product are considered hazardous according to OSHA Hazard Communication Standard (29 CFR 1910. 1200).

The composition of this compound is proprietary information. In the event of a medical emergency, detailed information will be provided to a nurse or physician.

SECTION 4. FIRST AID MEASURES

IF IN EYES: Remove the substance from the eye(s), & immediately flush eye(s) with plenty of water while retracting eyelids often. If inflammation or blurred vision develops, seek medical attention & provide the medical care professional with this MSDS.

IF ON SKIN: Wash with soap & water.

IF VAPORS INHALED: Not an anticipated route of exposure. If dusts are produced by cutting or sanding this product, please consider improving work site ventilation.

IF SWALLOWED: No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with MSDS.

1 of 4

SECTION 5, FIRE FIGHTING MEASURES

FLASH POINT:	212F
AUTOIGNITION TEMPERATURE:	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
UPPER EXPLOSIVE LIMIT (% in air):	Not established
EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE & EXPLOSION HAZARDS:	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus & full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon Dioxide, Carbon Monoxide

SECTION 6, ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7, HANDLING & STORAGE

Handling: No special handling instructions due to toxicity.
Storage: Store in a cool, dry place.

Consult the Technical Data Sheet for specific storage instructions.

SECTION 8, EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear goggles when handling this product.
SKIN PROTECTION: Protect skin accordingly if working in environments with elevated temperatures.
GLOVES: Not normally required. Use nitrile gloves if conditions warrant.
RESPIRATORY PROTECTION: Not normally required.
VENTILATION: Use local exhaust ventilation to minimize exposure.
HYGIENIC PRACTICES: Wash hands before eating, smoking or using the restroom.

EXPOSURE LIMITS: None applicable for this product when used for normal industrial applications. Avoid excessive & unnecessary exposure whenever possible. If deemed useful & essential for treatment, specific exposure limits of raw materials used during the manufacturing process will be provided to a nurse or physician.

SECTION 9, PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	White
ODOR:	Sweet, Mild
ODOR THRESHOLD:	Not established
SPECIFIC GRAVITY:	1.12 - 1.19
SOLIDS (% by weight):	59-64%
pH:	Not established
BOILING POINT (deg. C):	Not established
FREEZING/MELTING POINT (deg. C):	Not established
VAPOR PRESSURE (mmHg):	Not established
VAPOR DENSITY:	Not established
EVAPORATION RATE:	Not established
OCTANOL/WATER COEFFICIENT:	Not established

SECTION 10, STABILITY & REACTIVITY

STABILITY:	Stable under normal conditions
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon Monoxide, Carbon Dioxide, Bromine containing gases

SECTION 11, TOXICOLOGICAL INFORMATION

Chemical Name	LD50/LC50
Zinc Oxide	Oral LD50 Mouse > 950 mg/kg

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 12, ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available.

SECTION 13, DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulation 40 CFR 261. Dispose of in accordance with federal, state & local law. Consult your state, local or provincial authorities & your local waste vendor for more restrictive requirements.

SECTION 14, TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

SECTION 15, REGULATORY INFORMATION

INVENTORY STATUS:

U.S. EPA TSCA: This product is in compliance with the Toxic Substance Control Act's Inventory requirements.

If you need more information about the inventory status of this product, call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental protection Agency, the Bureau of Industry & Security or the Drug Enforcement Administration, among others.)

FEDERAL REPORTING:

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 (SARA) & 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%

CANADIAN WHMIS STATUS: To the best of my knowledge, this material is classified as a NON-CONTROLLED PRODUCT.

SECTION 16, OTHER INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety & Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910. 1200).

Prepared by: Heng's Industries 04/01/2016
Phone: 574-295-1200

The information & recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Heng's Industries from its suppliers & because Heng's Industries has no control over the conditions of handling & use, Heng's Industries makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information & consideration & Heng's Industries assumes no responsibility for use or reliance thereon. It is the responsibility of the user of Heng's Industries products to comply with all applicable federal, state & local laws & regulations.



SAFETY DATA SHEET

HENG'S WHITE ALKYD FIBERED ROOF COATING
45128-4, 45032, 45640

SECTION 1, COMPANY & PRODUCT IDENTIFICATION

COMPANY INFORMATION:

Heng's Industries

3500 Lexington Park Drive

Elkhart, IN 46514

Phone: 574-295-1200

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

PRODUCT NUMBER: 45128-4, 45032, 45640

PRODUCT DESCRIPTION: Heng's White Alkyd Fibered Roof Coating

SECTION 2, HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

Cancer Hazard

HMIS RATING: HEALTH - 0

FLAMMABILITY - 1

REACTIVITY - 0

See SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION for personal protective equipment recommendations.

POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY:

EYE: Eye contact may cause moderate to severe eye irritation. Eye contact may result in tearing & reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.

SKIN: Can cause moderate skin irritation, defatting & dermatitis. Not likely to cause permanent damage. Avoid unnecessary exposure.

INHALATION: Can cause moderate respiratory irritation. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract. Inhalation of high concentrations may result in central nervous system (CNS) impairment such as dizziness, weakness, fatigue, nausea, headache & lack of coordination. This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of this product, such material(s) are encapsulated within the product & will not present an exposure risk. Once the product has reached its final state & is abraded or disturbed, dusting & exposure may occur.

INGESTION: Ingestion is not an anticipated route of exposure. Harmful if swallowed. Seek medical attention.

LONG-TERM (CHRONIC) EFFECTS

TARGET ORGAN(S): Central Nervous System, Lungs, Kidneys

REGULATED CARCINOGEN STATUS:

Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH or OSHA listed carcinogens.

EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE: Lung disease, kidney disease

SECTION 3, COMPOSITION/INFORMATION ON INGREDIENTS

Based on data available to Heng's Industries, none of the components in this product are considered hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200). The composition of this compound is proprietary information. In the event of a medical emergency, detailed information will be provided to a nurse or physician.

1 of 4

Chemical Name	CAS#	PERCENT	OSHA PEL
Stoddard Solvent	8052-41-3	1-5	TWA 100 ppm
Soybean Oil	68122-64-5	40-50	TWA (Respirable dust) %MG/M3; TWA (Total dust) 15 MG/M3

SECTION 4. FIRST AID MEASURES

IF IN EYES: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention & monitor the eye daily as advised by your physician.
 IF ON SKIN: Wash with soap & water. Remove contaminated clothing & launder. Get medical attention if irritation develops or persists.
 IF VAPORS INHALED: Remove to fresh air. Restore breathing, if necessary. Call a physician if symptoms persist.
 IF SWALLOWED: Do not induce vomiting. Seek medical attention immediately. Drink 2 glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT: 64C, 147F
 AUTOIGNITION TEMPERATURE: Not established
 LOWER EXPLOSIVE LIMIT (% in air): Not established
 UPPER EXPLOSIVE LIMIT (% in air): Not established
 EXTINGUISHING MEDIA: Use water spray, foam, dry chemical or carbon dioxide.
 UNUSUAL FIRE & EXPLOSION HAZARDS: Material will burn in a fire.
 SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus & full protective equipment.
 HAZARDOUS COMBUSTION PRODUCTS: Carbon Dioxide, Carbon monoxide Chlorine containing gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.
 CLEAN UP: Scrape up & place in disposal container.
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

SECTION 7. HANDLING & STORAGE

Handling: No special handling instructions due to toxicity.
 Storage: Store in a cool, dry ventilated location. Keep away from heat, sparks, flame & other sources of ignition. Keep container closed.
 Consult the Technical Data Sheet for specific storage instructions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Wear safety glasses with side shields when handling this product.
 SKIN PROTECTION: Avoid skin contact by wearing chemically resistant gloves & a long sleeved shirt.
 GLOVES: Butyl rubber or nitrile gloves are recommended.
 RESPIRATORY PROTECTION: Respiratory protection may be required to avoid exposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. A NIOSH approved air purifying respirator with an organic vapor cartridge is recommended. Respirators should be selected by & used following requirements found in OSHA's respirator standard (29 CFR 1910.134).
 VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures
 EXPOSURE LIMITS:

Chemical Name	ACGIH EXPOSURE LIMITS	AIHA WEEL
Stoddard solvent	TWA 100 ppm	Not established

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE: Gel
COLOR: White
ODOR: Solvent, Aromatic pre-cure
ODOR THRESHOLD: Not established
SPECIFIC GRAVITY: 1.4 – 1.5
WEIGHT PER GALLON (lbs.): 12.0
SOLIDS (% by weight): 73%
pH: Not established
BOILING POINT (deg. C): Not established
FREEZING/MELTING POINT (deg. C): Not established
VAPOR PRESSURE (mmHg): Not established
VAPOR DENSITY: Not established
EVAPORATION RATE: Not established
OCTANOL/WATER COEFFICIENT: Not established

SECTION 10. STABILITY & REACTIVITY

STABILITY: Stable under normal conditions
CHEMICAL INCOMPATIBILITY: Strong oxidizing agents
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, Carbon Dioxide, chlorine containing gases, nitrogen containing gases

SECTION 11. TOXICOLOGICAL INFORMATION

Chemical Name	LD50/LC50
Calcium Carbonate	Oral LD50 Rat = 6450 mg/kg
Silica, amorphous fumed	Oral LD50 Rat = 3160 mg/kg
Carbon Black	Oral LD50 Rat > 15400 mg/kg; Dermal LD50 Rabbit > 3g/kg

TOXICOLOGY SUMMARY: No additional health information available.

SECTION 12. ECOLOGICAL INFORMATION

OVERVIEW: Volatile Organic Content

- 94 gVOC/liter of material (VOC theoretically determined using EPA Reference method 24)
- 94 gVOC/liter of material, less water & exempt solvents (VOC theoretically determined using EPA Reference method 24)

SECTION 13. DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulation 40 CFR 261. Dispose of in accordance with federal, state & local law. Consult your state, local or provincial authorities & your local waste vendor for more restrictive requirements.

SECTION 14. TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

DOT: NOT REGULATED
IATA: NOT REGULATED

SECTION 15. REGULATORY INFORMATION

INVENTORY STATUS:

U.S. EPA TSCA: This product is in compliance with the Toxic Substance Control Act's Inventory requirements.

If you need more information about the inventory status of this product, call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental protection Agency, the Bureau of Industry & Security or the Drug Enforcement Administration, among others.)

FEDERAL REPORTING:
EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 (SARA) & 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.
D2A

SECTION 16, OTHER INFORMATION

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety & Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910. 1200).

Prepared by: Heng's Industries 04/04/2016
Phone: 574-295-1200

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Safety Data Sheet

Section 1: Identification

Product identifier

- Product Name** • 303 Clear Vinyl Protective Cleaner
- Synonyms** • 589535
- Product Code** • 30214; 30215

Relevant identified uses of the substance or mixture and uses advised against

- Recommended use** • Restores and maintains a like-new appearance, texture and color
- Restrictions on use** • Read and follow label directions, warnings and materials not to be treated

Details of the supplier of the safety data sheet

- Manufacturer** • Gold Eagle Co.
4400 S. Kildare Avenue
Chicago, IL 60632-4372
United States
<http://www.goldeagle.com/>
- Telephone (General)** • 773-376-4400

Emergency telephone number

- Manufacturer** • 1-800-535-5053 - (INFOTRAC #22283)

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2

Label elements

OSHA HCS 2012

WARNING



Hazard statements • Causes serious eye irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Wear eye/face protection , .
Read label before use.
Do not eat, drink or smoke when using this product.

Response • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.
 IF ON SKIN: Gently wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Storage/Disposal • Store in a well-ventilated place. Keep container tightly closed.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients**Substances**

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	
Water	CAS:7732-18-5	75% TO 100%	Ingestion/Oral-Rat LD50 • >90 mL/kg	OSHA HCS 2012:	Not Hazardous
Polydimethyl Siloxane	CAS:63148-62-9	<= 1%	Ingestion/Oral-Rat LD50 • >17 g/kg Skin-Rabbit LD50 • >2 g/kg	OSHA HCS 2012:	Eye Irrit. 2
Nonylphenol polyethylene glycol ether	CAS:127087-87-0	<= 1%	NDA	OSHA HCS 2012:	Not Classified
Glucitol	CAS:50-70-4	0% TO 1%	NDA	OSHA HCS 2012:	Not Classified
Proprietary	Proprietary	0% TO 1%	NDA	OSHA HCS 2012:	Not Classified
Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	CAS:160875-66-1	< 1%	NDA	OSHA HCS 2012:	Eye Dam. 1
Proprietary	Proprietary	< 1%	NDA	OSHA HCS 2012:	Not Classified
Magnesium nitrate	CAS:10377-60-3	< 0.235%	NDA	OSHA HCS 2012:	Ox. Sol. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Resp. Irrit.
Ethylene glycol	CAS:107-21-1	0% TO 0.22%	Ingestion/Oral-Rat LD50 • 470 mg/kg Skin-Rabbit LD50 • 9530 mg/kg	OSHA HCS 2012:	Eye Irrit. 2; STOT SE 1 (Kidney, OrI); STOT RE 1 (Kidney, OrI)
Proprietary	Proprietary	0% TO 0.22%	Ingestion/Oral-Rat LD50 • 1540 mg/kg Inhalation-Rat LC50 • 36 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 794 µL/kg	OSHA HCS 2012:	Repr. 2; Acute Tox. 4 (orI); Acute Tox. 3 (skn); Eye Irrit. 2
			Ingestion/Oral-Rat LD50 • 661 mg/kg		

Proprietary	Proprietary	0% TO 0.022%	Inhalation-Rat LC50 • 13300 ppm 4 Hour(s) Skin-Rabbit.LD50 • 3540 mg/kg	OSHA HCS 2012:	Exposure limits
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Section 4: First-Aid Measures

Description of first aid measures

- Inhalation**
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin**
- Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. Obtain medical attention immediately if ingested.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

- Unsuitable Extinguishing Media**
- No data available.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Poses no unusual fire or explosion hazard.

- Hazardous Combustion Products**
- No data available.

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled

material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of spill for later disposal.

Section 7 - Handling and Storage**Precautions for safe handling****Handling**

- Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities**Storage**

- Keep container closed. Store in a cool, dry, well-ventilated place. Avoid contact with heat and ignition sources. Do not store in unmarked containers or storage devices.

Section 8 - Exposure Controls/Personal Protection**Control parameters**

		Exposure Limits/Guidelines	
Result		ACGIH	OSHA
Proprietary (Proprietary)	TWAs	Not established	200 ppm TWA; 360 mg/m ³ TWA
	Ceilings	25 ppm Ceiling	Not established
Ethylene glycol (107-21-1)	Ceilings	100 mg/m ³ Ceiling (aerosol only)	Not established

Exposure controls**Engineering Measures/Controls**

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Water based white, opaque liquid.
	White	Odor	No data available
Odor Threshold	No data available		
General Properties			
Boiling Point	212 F(100 C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	7 to 8
Specific Gravity/Relative Density	= 1.01 Water=1	Water Solubility	Soluble 100 %
Viscosity	3 Centistoke (cSt, cS) or mm ² /sec @ 40 C(104 F)		
Volatility			
Vapor Pressure	17.5 mmHg (torr)	Vapor Density	0.62 Air=1
Evaporation Rate	< 1 n-Butyl Acetate = 1		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Close proximity to incompatible substances.

Incompatible materials

- Alkalis, strong oxidizers.

Hazardous decomposition products

- If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxides gases (e.g., CO, CO₂)

Section 11 - Toxicological Information

Information on toxicological effects

Components	
Proprietary 100 (G.E.L. Co)	Proprietary Acute Toxicity: Ingestion/Oral-Rat LD50 • 1540 mg/kg; Behavioral:Tremor; Inhalation-Rat LC50 • 36 g/m ³ 4 Hour (s); Behavioral:Excitement; Lungs, Thorax, or Respiration:Dyspnea; Skin and Appendages:Other:Hair; Skin-Rabbit LD50 • 794 µL/kg; Kidney, Ureter, and Bladder:Hematuria; Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Inhalation-Rat TCLo • 700 ppm 6 Hour(s) 4 Week(s)-Intermittent; Liver:Changes in liver weight; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Cytochrome oxidases (including oxidative phosphorylation); Reproductive: Inhalation-Rat TCLo • 696 ppm (3D pre/3D preg); Reproductive Effects:Maternal

Effects:Oogenesis; **Reproductive Effects:**Effects on Fertility:Pre-implantation mortality; **Reproductive Effects:**Effects on Embryo or Fetus:Fetal death; Inhalation-Rat TCLo • 700 ppm (3D pre/3D preg); **Reproductive Effects:**Maternal Effects:Ovaries, fallopian tubes; **Reproductive Effects:**Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)

Polydimethyl Siloxane (<= 1%)

63148-62-9

Acute Toxicity: Ingestion/Oral-Rat LD50 • >17 g/kg; **Kidney, Ureter, and Bladder:Other changes;** **Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Other changes;** **Skin-Rabbit LD50 • >2 g/kg;** **Behavioral:Food intake (animal); Gastrointestinal:Hypermotility, diarrhea;** **Skin and Appendages:After systemic exposure:Dermatitis, other;** **Irritation:** Eye-Rabbit • 100 µL 24 Hour(s) • Mild irritation; **Skin-Rabbit • 500 µL 24 Hour(s) • Mild irritation**

Ethylene glycol (0% TO 0.22%)

107-21-1

Acute Toxicity: Ingestion/Oral-Rat LD50 • 470 mg/kg; Ingestion/Oral-Man TDLo • 24 g/kg; **Brain and Coverings:Other degenerative changes;** **Behavioral:Ataxia;** **Behavioral:Coma;** Ingestion/Oral-Man TDLo • 15 g/kg; **Peripheral Nerve and Sensation:Sensory change involving peripheral nerve;** **Gastrointestinal:Ulceration or bleeding from small intestine;** **Kidney, Ureter, and Bladder:Renal function tests depressed;** Ingestion/Oral-Man TDLo • 1195 mg/kg; **Peripheral Nerve and Sensation:Sensory change involving peripheral nerve;** **Kidney, Ureter, and Bladder:Renal function tests depressed;** Ingestion/Oral-Rat TDLo • 120 mg/kg; **Blood:Changes in bone marrow not included above;** Inhalation-Human TCLo • 22 mg/m³; **Kidney, Ureter, and Bladder:Proteinuria;** Inhalation-Rat TCLo • 0.004 g/m³ 2 Hour(s); **Behavioral:Muscle contraction or spasticity;** **Lungs, Thorax, or Respiration:Respiratory stimulation;** **Gastrointestinal:Hypermotility, diarrhea;** **Skin-Rabbit LD50 • 9530 mg/kg;** **Irritation:** Eye-Rabbit • 100 mg 1 Hour(s) • Mild irritation; **Skin-Rabbit • 555 mg-Open • Mild irritation;** **Multi-dose Toxicity:** Inhalation-Guinea Pig TCLo • 0.003 g/m³ 45 Day(s)-Intermittent; **Behavioral:Excitement;** **Liver:Liver function tests impaired;** Inhalation-Rat TCLo • 1 mg/m³ 32 Week(s)-Intermittent; **Lungs, Thorax, or Respiration:Other changes;** **Liver:Liver function tests impaired;** **Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis);** Inhalation-Rat TCLo • 0.003 g/m³ 228 Day(s)-Intermittent; **Brain and Coverings:Other degenerative changes;** **Vascular:Structural changes in vessels;** **Lungs, Thorax, or Respiration:Emphysema;** Inhalation-Rat TCLo • 0.02 g/m³ 153 Day(s)-Intermittent; **Lungs, Thorax, or Respiration:Emphysema;** **Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis);** **Blood:Changes in spleen;** **Mutagen:** Cytogenetic analysis • Ingestion/Oral-Rat • 1200 mg/kg; **Reproductive:** Ingestion/Oral-Mouse TDLo • 850 mg/kg (multigenerations); **Reproductive Effects:Specific Developmental Abnormalities:Urogenital system;** Inhalation-Mouse TCLo • 1000 mg/m³ 6 Hour(s)(6-15D preg); **Reproductive Effects:Maternal Effects:Uterus, cervix, vagina;** **Reproductive Effects:Maternal Effects:Other effects;** **Reproductive Effects:Effects on Fertility:Pre-implantation mortality;** Inhalation-Mouse TCLo • 2100 mg/m³ 6 Hour(s)(6-15D preg); **Reproductive Effects:Maternal Effects:Other effects;** **Reproductive Effects:Effects on Fertility:Pre-implantation mortality;** **Reproductive Effects:Effects on Fertility:Post-implantation mortality;** Inhalation-Rat TCLo • 2500 mg/m³ 6 Hour(s)(6-15D preg); **Reproductive Effects:Maternal Effects:Other effects;** **Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system;** **Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities**

Nonylphenol polyethylene glycol ether (<= 1%)

127087-87-0

Reproductive: Ingestion/Oral-Rat TDLo • 2500 mg/kg (6-15D preg); **Reproductive Effects:Maternal Effects:Other effects;** **Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system**

Glucitol (0% TO 1%)

50-70-4

Acute Toxicity: Ingestion/Oral-Rat LD50 • 15900 mg/kg; Ingestion/Oral-Woman TDLo • 1700 mg/kg 1 Day(s); **Gastrointestinal:Hypermotility, diarrhea**

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2
Acute toxicity	OSHA HCS 2012 • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available
Corrosion/Irritation	OSHA HCS 2012 • No data available
Skin sensitization	OSHA HCS 2012 • No data available

STOT-RE	OSHA HCS 2012 • No data available
STOT-SE	OSHA HCS 2012 • No data available
Ability for Reproduction	OSHA HCS 2012 • No data available
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available

Potential Health Effects

Inhalation

- Acute (Immediate) • No adverse health effects expected.
- Chronic (Delayed) • No data available.

Skin

- Acute (Immediate) • May cause mild irritation.
- Chronic (Delayed) • No data available.

Eye

- Acute (Immediate) • Causes serious eye irritation.
- Chronic (Delayed) • No data available.

Ingestion

- Acute (Immediate) • May cause gastrointestinal disturbances including diarrhea, nausea, and vomiting.
- Chronic (Delayed) • No data available.

Carcinogenic Effects

- This product does not contain any components above de minimus concentrations that are considered carcinogenic by OSHA , IARC or NTP .

Carcinogenic Effects			
	CAS	IARC	NTP
Proprietary	Proprietary	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen

Key abbreviations

- LC = Lethal Concentration
- LD = Lethal Dose
- TC = Toxic Concentration
- TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Inventory		
Component	CAS	TSCA
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Ethylene glycol	107-21-1	Yes
Glucitol	50-70-4	Yes
Magnesium nitrate	10377-60-3	Yes
Nonylphenol polyethylene glycol ether	127087-87-0	Yes
Proprietary	Proprietary	Yes
Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Yes
Polydimethyl Siloxane	63148-62-9	Yes
Water	7732-18-5	Yes

United States**Labor**

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed

• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	2500 lb TQ
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	10000 lb threshold quantity
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	1000 lb final RQ; 454 kg final RQ
• Ethylene glycol	107-21-1	5000 lb final RQ; 2270 kg final RQ
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	0.1 % de minimis concentration
• Ethylene glycol	107-21-1	1.0 % de minimis concentration
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - CWA (Clean Water Act) - Hazardous Substances

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - CWA (Clean Water Act) - Toxic Pollutants

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	carcinogen, initial date 4/1/88
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Magnesium nitrate	10377-60-3	Not Listed
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• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	90 µg/day NSRL (inhalation)
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• Nonylphenol polyethylene glycol ether	127087-87-0	Not Listed
• Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy	160875-66-1	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Polydimethyl Siloxane	63148-62-9	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

- Water
- Nonylphenol polyethylene glycol ether
- Poly(oxy-1,2-ethanediyl),alpha-(2-propylheptyl)-omega hydroxy

7732-18-5	Not Listed
127087-87-0	Not Listed
160875-66-1	Not Listed

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date

- 08/September/2015

Preparation Date

- 08/September/2015

Other Information

- Schedule B Number: 3405.90.0000.

Disclaimer/Statement of Liability

- Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet



Section 1: Identification

Product identifier

- Product Name** • 303 Aerospace Protectant
- Synonyms** • 587940
- Product Code** • 1801; 30302; 30303; 30304; 30305; 30306; 30306CSR; 30307; 30307CSR; 30308; 30308CSR; 30313; 30313CSR; 30320; 30321; 30322; 30323; 30340; 30340CSR; 30350; 30370; 30375; 30377; 30377CSR; 30378; 30378CSR; 30379; 30381; 30382; 30382CSR; 30383; 30440; 30440BD; 30910

Relevant identified uses of the substance or mixture and uses advised against

- Recommended use** • Restores and maintains a like-new appearance, texture and color
- Restrictions on use** • Read and follow label directions, warnings and materials not to be treated

Details of the supplier of the safety data sheet

- Manufacturer** • Gold Eagle Co.
4400 S. Kildare Avenue
Chicago, IL 60632-4372
United States
<http://www.goldeagle.com/>
- Telephone (General)** • 773-376-4400

Emergency telephone number

- Manufacturer** • 1-800-535-5053 - (INFOTRAC #22283)

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2

Label elements

OSHA HCS 2012

WARNING



- Hazard statements** • Causes serious eye irritation

Precautionary statements

- Prevention** • Wash thoroughly after handling.
Wear eye/face protection , .
- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients**Substances**

- Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Water	CAS:7732-18-5	75% TO 100%	Ingestion/Oral-Rat LD50 • >90 mL/kg	OSHA HCS 2012: Not Hazardous
Proprietary	Proprietary	0% TO 15.4%	Ingestion/Oral-Rat LD50 • >17 g/kg Skin-Rabbit LD50 • >2 g/kg	OSHA HCS 2012: Eye Irrit. 2
Proprietary	Proprietary	0% TO 1.1%	NDA	OSHA HCS 2012: Eye Dam. 1
Proprietary	CAS:50-70-4	0% TO 1%	NDA	OSHA HCS 2012: Not Classified
Proprietary	Proprietary	0% TO 1%	NDA	OSHA HCS 2012: Not Classified
Proprietary	Proprietary	0% TO 1%	NDA	OSHA HCS 2012: Not Classified
Proprietary	Proprietary	< 1%	NDA	OSHA HCS 2012: Not Classified
Magnesium nitrate	CAS:10377-60-3	< 0.235%	NDA	OSHA HCS 2012: Ox. Sol. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Resp. Irrit.
Ethylene glycol	CAS:107-21-1	0% TO 0.22%	Ingestion/Oral-Rat LD50 • 470 mg/kg Skin-Rabbit LD50 • 9530 mg/kg	OSHA HCS 2012: Eye Irrit. 2; STOT SE 1 (Kidney, Orl); STOT RE 1 (Kidney, Orl)
Proprietary	Proprietary	0% TO 0.22%	Ingestion/Oral-Rat LD50 • 1540 mg/kg Inhalation-Rat LC50 • 36 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 794 µL/kg	OSHA HCS 2012: Repr. 2; Acute Tox. 4 (orl); Acute Tox. 3 (skn); Eye Irrit. 2
Proprietary	Proprietary	0% TO 0.022%	Ingestion/Oral-Rat LD50 • 661 mg/kg Inhalation-Rat LC50 • 13300 ppm 4 Hour(s) Skin-Rabbit LD50 • 3540 mg/kg	OSHA HCS 2012: Exposure limits

Section 4: First-Aid Measures**Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin	<ul style="list-style-type: none"> Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.
Eye	<ul style="list-style-type: none"> In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	<ul style="list-style-type: none"> Do NOT induce vomiting. Obtain medical attention immediately if ingested.
Most important symptoms and effects, both acute and delayed	
	<ul style="list-style-type: none"> Refer to Section 11 - Toxicological Information.
Indication of any immediate medical attention and special treatment needed	
Notes to Physician	<ul style="list-style-type: none"> All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • LARGE FIRE: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media • No data available.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Poses no unusual fire or explosion hazard.

Hazardous Combustion Products • No data available.

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of spill for later disposal.

Section 7 - Handling and Storage

Precautions for safe handling**Handling**

- Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities**Storage**

- Keep container closed. Store in a cool, dry, well-ventilated place. Avoid contact with heat and ignition sources. Do not store in unmarked containers or storage devices.

Section 8 - Exposure Controls/Personal Protection**Control parameters**

		Exposure Limits/Guidelines	
Result		ACGIH	OSHA
Proprietary (Proprietary)	TWAs	Not established	200 ppm TWA; 360 mg/m ³ TWA
	Ceilings	25 ppm Ceiling	Not established
Ethylene glycol (107-21-1)	Ceilings	100 mg/m ³ Ceiling (aerosol only)	Not established

Exposure controls**Engineering Measures/Controls**

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Water based white, opaque liquid.
Color	White	Odor	No data available
Odor Threshold	No data available		
General Properties			
Boiling Point	212 F(100 C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	7 to 8
Specific Gravity/Relative Density	= 1.01 Water=1	Water Solubility	Soluble 100 %
Viscosity	3 Centistoke (cSt, cS) or mm ² /sec @ 40 C(104 F)		
Volatility			

Vapor Pressure	17.5 mmHg (torr)	Vapor Density	0.62 Air=1
Evaporation Rate	< 1 n-Butyl Acetate = 1		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Close proximity to incompatible substances.

Incompatible materials

- Alkalis, strong oxidizers.

Hazardous decomposition products

- If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxides gases (e.g., CO, CO₂)

Section 11 - Toxicological Information

Information on toxicological effects

		Components
Proprietary (0% TO 0.22%)	Proprietary	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 1540 mg/kg; <i>Behavioral:Tremor</i>; Inhalation-Rat LC50 • 36 g/m³ 4 Hour(s); <i>Behavioral:Excitement</i>; <i>Lungs, Thorax, or Respiration:Dyspnea</i>; <i>Skin and Appendages:Other:Hair</i>; Skin-Rabbit LD50 • 794 µL/kg; <i>Kidney, Ureter, and Bladder:Hematuria</i>;</p> <p>Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation;</p> <p>Multi-dose Toxicity: Inhalation-Rat TCLO • 700 ppm 6 Hour(s) 4 Week(s)-Intermittent; <i>Liver:Changes in liver weight</i>; <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i>;</p> <p><i>Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Cytochrome oxidases (including oxidative phosphorylation)</i>;</p> <p>Reproductive: Inhalation-Rat TCLO • 696 ppm (3D pre/3D preg); <i>Reproductive Effects:Maternal Effects:Oogenesis</i>; <i>Reproductive Effects:Effects on Fertility:Pre-implantation mortality</i>; <i>Reproductive Effects:Effects on Embryo or Fetus:Fetal death</i>; Inhalation-Rat TCLO • 700 ppm (3D pre/3D preg); <i>Reproductive Effects:Maternal Effects:Ovaries, fallopian tubes</i>; <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)</i></p>
Proprietary (0% TO 15.4%)	Proprietary	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • >17 g/kg; <i>Kidney, Ureter, and Bladder:Other changes</i>; <i>Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:Other changes</i>; Skin-Rabbit LD50 • >2 g/kg;</p> <p><i>Behavioral:Food intake (animal)</i>; <i>Gastrointestinal:Hypermotility, diarrhea</i>; <i>Skin and Appendages:After systemic exposure:Dermatitis, other</i>;</p> <p>Irritation: Eye-Rabbit • 100 µL 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 µL 24 Hour(s) • Mild irritation</p>
		<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • 470 mg/kg; Ingestion/Oral-Man TDLo • 24 g/kg; <i>Brain and Coverings:Other degenerative changes</i>; <i>Behavioral:Ataxia</i>; <i>Behavioral:Coma</i>; Ingestion/Oral-Man TDLo • 15 g/kg; <i>Peripheral Nerve</i></p>

Ethylene glycol (0% TO 0.22%)	107-21-1	<p><i>and Sensation</i>:Sensory change involving peripheral nerve; <i>Gastrointestinal</i>:Ulceration or bleeding from small intestine; <i>Kidney, Ureter, and Bladder</i>:Renal function tests depressed; Ingestion/Oral-Man TDLo • 1195 mg/kg; <i>Peripheral Nerve and Sensation</i>:Sensory change involving peripheral nerve; <i>Kidney, Ureter, and Bladder</i>:Renal function tests depressed; Ingestion/Oral-Rat TDLo • 120 mg/kg; <i>Blood</i>:Changes in bone marrow not included above; Inhalation-Human TCLo • 22 mg/m³; <i>Kidney, Ureter, and Bladder</i>:Proteinuria; Inhalation-Rat TCLo • 0.004 g/m³ 2 Hour(s); <i>Behavioral</i>:Muscle contraction or spasticity; <i>Lungs, Thorax, or Respiration</i>:Respiratory stimulation; <i>Gastrointestinal</i>:Hypermotility, diarrhea; Skin-Rabbit LD50 • 9530 mg/kg;</p> <p><i>Irritation</i>: Eye-Rabbit • 100 mg 1 Hour(s) • Mild irritation; Skin-Rabbit • 555 mg-Open • Mild irritation;</p> <p><i>Multi-dose Toxicity</i>: Inhalation-Guinea Pig TCLo • 0.003 g/m³ 45 Day(s)-Intermittent; <i>Behavioral</i>:Excitement; <i>Liver</i>:Liver function tests impaired; Inhalation-Rat TCLo • 1 mg/m³ 32 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Other changes; <i>Liver</i>:Liver function tests impaired; <i>Kidney, Ureter, and Bladder</i>:Changes in tubules (including acute renal failure, acute tubular necrosis); Inhalation-Rat TCLo • 0.003 g/m³ 228 Day(s)-Intermittent; <i>Brain and Coverings</i>:Other degenerative changes; <i>Vascular</i>:Structural changes in vessels; <i>Lungs, Thorax, or Respiration</i>:Emphysema; Inhalation-Rat TCLo • 0.02 g/m³ 153 Day(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i>:Emphysema; <i>Kidney, Ureter, and Bladder</i>:Changes in tubules (including acute renal failure, acute tubular necrosis); <i>Blood</i>:Changes in spleen;</p> <p><i>Mutagen</i>: Cytogenetic analysis • Ingestion/Oral-Rat • 1200 mg/kg;</p> <p><i>Reproductive</i>: Ingestion/Oral-Mouse TDLo • 850 mg/kg (multigenerations); <i>Reproductive Effects</i>:Specific Developmental Abnormalities:Urogenital system; Inhalation-Mouse TCLo • 1000 mg/m³ 6 Hour(s)(6-15D preg); <i>Reproductive Effects</i>:Maternal Effects:Uterus, cervix, vagina; <i>Reproductive Effects</i>:Maternal Effects:Other effects; <i>Reproductive Effects</i>:Effects on Fertility:Pre-implantation mortality; Inhalation-Mouse TCLo • 2100 mg/m³ 6 Hour(s)(6-15D preg); <i>Reproductive Effects</i>:Maternal Effects:Other effects; <i>Reproductive Effects</i>:Effects on Fertility:Pre-implantation mortality; <i>Reproductive Effects</i>:Effects on Fertility:Post-implantation mortality; Inhalation-Rat TCLo • 2500 mg/m³ 6 Hour(s)(6-15D preg); <i>Reproductive Effects</i>:Maternal Effects:Other effects; <i>Reproductive Effects</i>:Specific Developmental Abnormalities:Musculoskeletal system; <i>Reproductive Effects</i>:Specific Developmental Abnormalities:Other developmental abnormalities</p>
Proprietary (0% TO 1%)	Proprietary	<p><i>Reproductive</i>: Ingestion/Oral-Rat TDLo • 2500 mg/kg (6-15D preg); <i>Reproductive Effects</i>:Maternal Effects:Other effects; <i>Reproductive Effects</i>:Specific Developmental Abnormalities:Musculoskeletal system</p>
Glucitol (0% TO 1%)	50-70-4	<p><i>Acute Toxicity</i>: Ingestion/Oral-Rat LD50 • 15900 mg/kg; Ingestion/Oral-Woman TDLo • 1700 mg/kg 1 Day(s); <i>Gastrointestinal</i>:Hypermotility, diarrhea</p>

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2
Acute toxicity	OSHA HCS 2012 • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • No data available
Skin sensitization	OSHA HCS 2012 • No data available
STOT-RE	OSHA HCS 2012 • No data available
STOT-SE	OSHA HCS 2012 • No data available
Toxicity for Reproduction	OSHA HCS 2012 • No data available

Potential Health Effects

Inhalation

- Acute (Immediate)** • No adverse health effects expected.
- Chronic (Delayed)** • No data available.

Snail

Acute (Immediate)

- May cause mild irritation.

Chronic (Delayed)

- No data available.

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- May cause gastrointestinal disturbances including diarrhea, nausea, and vomiting.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- This product does not contain any components above de minimus concentrations that are considered carcinogenic by OSHA , IARC or NTP .

Carcinogenic Effects		
CAS	IARC	NTP
Proprietary	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
NDA	Not Regulated	NDA	NDA	NDA

Special precautions for user • None specified.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Inventory		TSCA
Component	CAS	
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Ethylene glycol	107-21-1	Yes
Glucitol	50-70-4	Yes
Magnesium nitrate	10377-60-3	Yes
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Water	7732-18-5	Yes

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	2500 lb TQ
• Ethylene glycol	107-21-1	Not Listed
• Proprietary	Proprietary	Not Listed
• Water	7732-18-5	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Proprietary	Proprietary	Not Listed
• Water	7732-18-5	Not Listed

- Proprietary
- Proprietary

Proprietary Not Listed
 Proprietary Not Listed

Ironment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- Magnesium nitrate 10377-60-3 Not Listed
- Glucitol 50-70-4 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary
- Ethylene glycol 107-21-1
- Proprietary Proprietary Not Listed
- Water 7732-18-5 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

- Magnesium nitrate 10377-60-3 Not Listed
- Glucitol 50-70-4 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary 10000 lb threshold quantity
- Ethylene glycol 107-21-1 Not Listed
- Proprietary Proprietary Not Listed
- Water 7732-18-5 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances

- Magnesium nitrate 10377-60-3 Not Listed
- Glucitol 50-70-4 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed
- Ethylene glycol 107-21-1 Not Listed
- Proprietary Proprietary Not Listed
- Water 7732-18-5 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Magnesium nitrate 10377-60-3 Not Listed
- Glucitol 50-70-4 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary 1000 lb final RQ; 454 kg final RQ
- Ethylene glycol 107-21-1 5000 lb final RQ; 2270 kg final RQ
- Proprietary Proprietary Not Listed
- Water 7732-18-5 Not Listed
- Proprietary Proprietary Not Listed
- Proprietary Proprietary Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	107-21-1	Not Listed
• Water	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	7732-18-5	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	107-21-1	Not Listed
• Water	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	7732-18-5	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	0.1 % de minimis concentration
• Ethylene glycol	107-21-1	1.0 % de minimis concentration
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Water	7732-18-5	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• Ethylene glycol	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	107-21-1	Not Listed
• Water	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	7732-18-5	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

U.S. - CWA (Clean Water Act) - Hazardous Substances

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• <i>Proprietary</i>	<i>Proprietary</i>	Not Listed

• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	
• Ethylene glycol	107-21-1	Not Listed
Proprietary	Proprietary	Not Listed
Water	7732-18-5	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

U.S. - CWA (Clean Water Act) - Toxic Pollutants

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Proprietary	Proprietary	Not Listed
• Water	7732-18-5	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
Proprietary	Proprietary	carcinogen, initial date 4/1/88
• Ethylene glycol	107-21-1	Not Listed
• Proprietary	Proprietary	Not Listed
• Water	7732-18-5	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Ethylene glycol	107-21-1	Not Listed
• Proprietary	Proprietary	Not Listed
• Water	7732-18-5	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Magnesium nitrate	10377-60-3	Not Listed
• Glucitol	50-70-4	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
Proprietary	Proprietary	Not Listed
Ethylene glycol	107-21-1	Not Listed

<ul style="list-style-type: none"> • Proprietary • Water • Proprietary Proprietary 	<ul style="list-style-type: none"> Proprietary 7732-18-5 Proprietary Proprietary 	<ul style="list-style-type: none"> Not Listed Not Listed Not Listed Not Listed
<p>U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)</p>		
<ul style="list-style-type: none"> • Magnesium nitrate • Glucitol • Proprietary • Proprietary • Proprietary • Ethylene glycol • Proprietary • Water • Proprietary • Proprietary 	<ul style="list-style-type: none"> 10377-60-3 50-70-4 Proprietary Proprietary Proprietary 107-21-1 Proprietary 7732-18-5 Proprietary Proprietary 	<ul style="list-style-type: none"> Not Listed Not Listed Not Listed Not Listed 90 µg/day NSRL (inhalation) Not Listed Not Listed Not Listed Not Listed Not Listed
<p>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</p>		
<ul style="list-style-type: none"> • Magnesium nitrate • Glucitol • Proprietary • Proprietary • Proprietary • Ethylene glycol • Proprietary • Water • Proprietary Proprietary 	<ul style="list-style-type: none"> 10377-60-3 50-70-4 Proprietary Proprietary Proprietary 107-21-1 Proprietary 7732-18-5 Proprietary Proprietary 	<ul style="list-style-type: none"> Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
<p>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</p>		
<ul style="list-style-type: none"> • Magnesium nitrate • Glucitol • Proprietary • Proprietary • Proprietary • Ethylene glycol • Proprietary • Water • Proprietary • Proprietary 	<ul style="list-style-type: none"> 10377-60-3 50-70-4 Proprietary Proprietary Proprietary 107-21-1 Proprietary 7732-18-5 Proprietary Proprietary 	<ul style="list-style-type: none"> Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Revision Date	<ul style="list-style-type: none"> • 02/December/2015
Preparation Date	<ul style="list-style-type: none"> • 10/June/2015
Other Information	<ul style="list-style-type: none"> • Schedule B Number: 3405.90.0000.
Disclaimer/Statement of Liability	<ul style="list-style-type: none"> • Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing

contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

K: abbreviations

NDA = No Data Available

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name

- 303 Multisurface Cleaner

Synonyms

- 588054

Product Code

- 30202; 30204; 30207; 30207CSR; 30208; 30445; 30445BD; 30501; 30554; 30555; 30570

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Multisurface cleaner used on water safe fabrics, vinyl, carpet and hard surfaces

Restrictions on use

- Read and follow label directions and use warnings

Details of the supplier of the safety data sheet

Manufacturer

- Gold Eagle Co.
4400 S. Kildare Avenue
Chicago, IL 60632-4372
United States
<http://www.goldeagle.com/>

Telephone (General) • 773-376-4400

Emergency telephone number

Manufacturer

- 1-800-535-5053 - (INFOTRAC #22283)

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Skin Irritation 2
Skin Sensitization 1
Eye Irritation 2

Label elements

OSHA HCS 2012

WARNING



- Hazard statements** • Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation

Precautionary statements

- Prevention** • Avoid breathing mists, vapours, and/or spray.
Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.

- Response** • If on skin: Wash with plenty of water .
Take off contaminated clothing and wash before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation or rash occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Ethoxylated fatty alcohols	NDA	0% TO 2%	NDA	OSHA HCS 2012: Eye Dam. 1
Alkoxyated alcohols	NDA	0% TO 1%	NDA	OSHA HCS 2012: Skin Irrit. 2
Preservative	NDA	< 1%	NDA	OSHA HCS 2012: Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation**
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin**
- Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. Obtain medical attention immediately if ingested.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

- Available Extinguishing Media**
- **LARGE FIRE:** Water spray, fog or regular foam.
 - **SMALL FIRES:** Dry chemical, CO₂, water spray or regular foam.

- Unsuitable Extinguishing Media**
- No data available.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Poses no unusual fire or explosion hazard.

- Hazardous Combustion Products**
- No data available.

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Stay upwind. Keep unauthorized personnel away. Ventilate closed spaces before entering.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Stop leak if you can do it without risk.
SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
LARGE SPILLS: Dike far ahead of spill for later disposal.

Section 7 - Handling and Storage

Precautions for safe handling

- Handling**
- Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

- Storage**
- Keep container closed. Store in a cool, dry, well-ventilated place. Do not store in unmarked containers or storage devices.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Proprietary (Proprietary)	STELs	Not established	Not established	5 ppm STEL (see 29 CFR 1910.1047)
	TWAs	1 ppm TWA	0.1 ppm TWA (less than stated value); 0.18 mg/m ³ TWA (less than stated value)	1 ppm TWA
	Ceilings	Not established	5 ppm Ceiling (10 min/day); 9 mg/m ³ Ceiling (10 min/day)	Not established
Proprietary (Proprietary)	STELs	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	Not established	0.016 ppm TWA	0.75 ppm TWA
	Ceilings	0.3 ppm Ceiling	0.1 ppm Ceiling (15 min)	Not established
Proprietary (Proprietary)	TWAs	20 ppm TWA	Not established	100 ppm TWA; 360 mg/m ³ TWA
	Ceilings	Not established	1 ppm Ceiling (30 min); 3.6 mg/m ³ Ceiling (30 min)	Not established
Proprietary (Proprietary)	TWAs	Not established	Not established	200 ppm TWA; 360 mg/m ³ TWA
	Ceilings	25 ppm Ceiling	Not established	Not established

Exposure controls**Engineering Measures/Controls**

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties****Material Description**

Physical Form	Liquid	Appearance/Description	Slightly hazy water based cleaner with a surfactant odor.
Color	No data available	Odor	Surfactant
Odor Threshold	No data available		

General Properties

Boiling Point	212 F(100 C)	Melting Point/Freezing Point	> 32 F(>0 C)
Flash Point	No data available	pH	7 to 8
Specific Gravity/Relative Density	= 1.01 Water=1	Water Solubility	Soluble 100 %

Viscosity	3 Centistoke (cSt, cS) or mm ² /sec @ 40 C(104 F)		
Volatility			
Pressure	17.5 mmHg (torr)	Vapor Density	< 1 Air=1
Evaporation Rate	No data available		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Close proximity to incompatible substances.

Incompatible materials

- Alkalis, strong oxidizers.

Hazardous decomposition products

- If exposed to extremely high temperatures, the products of thermal decomposition may include irritating vapors and carbon oxides gases (e.g., CO, CO₂)

Section 11 - Toxicological Information

Information on toxicological effects

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2
Acute toxicity	OSHA HCS 2012 • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1
STOT-RE	OSHA HCS 2012 • No data available
SE	OSHA HCS 2012 • No data available
Toxicity for Reproduction	OSHA HCS 2012 • No data available

Germ Cell Mutagenicity	OSHA HCS 2012 • No data available
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Potential Health Effects

Inhalation

- Acute (Immediate)** • No adverse health effects expected.
- Chronic (Delayed)** • No data available.

Skin

- Acute (Immediate)** • Causes skin irritation. May cause skin sensitization. Symptoms include redness, and skin rash.
- Chronic (Delayed)** • No data available.

Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available.

Ingestion

- Acute (Immediate)** • May cause gastrointestinal disturbances including diarrhea, nausea, and vomiting.
- Chronic (Delayed)** • No data available.

Carcinogenic Effects

- This product does not contain any components above de minimus concentrations that are considered carcinogenic by OSHA , IARC or NTP .

Carcinogenic Effects					
	CAS	OSHA	IARC	NTP	
Proprietary	Proprietary	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known	Human Carcinogen
Proprietary	Proprietary	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known	Human Carcinogen
Proprietary	Proprietary	Not Listed	Group 1-Carcinogenic	Reasonably Anticipated to be Human Carcinogen	
Proprietary	Proprietary	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen	

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations**Waste treatment methods****Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Acute

Inventory		
Component	CAS	TSCA
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes
Proprietary	Proprietary	Yes

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Proprietary	Proprietary	5000 lb TQ
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	1000 lb TQ
• Proprietary	Proprietary	2500 lb TQ

U.S. - OSHA - Specifically Regulated Chemicals

• Proprietary	Proprietary	5 ppm Excursion Limit (See 29 CFR 1910.1047, 15 min); 0.5 ppm Action Level (See 29 CFR 1910.1047); 1 ppm TWA (See 29 CFR 1910.1047)
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	2 ppm STEL (See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level (See 29 CFR 1910.1048); 0.75 ppm TWA (See 29 CFR 1910.1048)
• Proprietary	Proprietary	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Proprietary	Proprietary	
• Proprietary	Proprietary	
• Proprietary	Proprietary	
• Proprietary	Proprietary	

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	10000 lb threshold quantity

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances

• Proprietary	Proprietary	10000 lb threshold quantity
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	15000 lb threshold quantity (Solution)
• Proprietary	Proprietary	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Proprietary	Proprietary	10 lb final RQ; 4.54 kg final RQ
• Proprietary	Proprietary	100 lb final RQ; 45.4 kg final RQ
• Proprietary	Proprietary	100 lb final RQ; 45.4 kg final RQ
• Proprietary	Proprietary	1000 lb final RQ; 454 kg final RQ

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Proprietary	Proprietary	10 lb EPCRA RQ
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	100 lb EPCRA RQ
• Proprietary	Proprietary	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Proprietary	Proprietary	1000 lb TPQ
• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	500 lb TPQ
• Proprietary	Proprietary	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Proprietary	Proprietary	0.1 % de minimis concentration
• Proprietary	Proprietary	0.1 % de minimis concentration
• Proprietary	Proprietary	0.1 % de minimis concentration
• Proprietary	Proprietary	0.1 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Proprietary	Proprietary	Not Listed
• Proprietary	Proprietary	Not Listed

- Proprietary
- Proprietary

Proprietary Not Listed
Proprietary Not Listed

S. - CWA (Clean Water Act) - Hazardous Substances

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary Not Listed
Proprietary Not Listed
Proprietary
Proprietary

U.S. - CWA (Clean Water Act) - Toxic Pollutants

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary Not Listed
Proprietary Not Listed
Proprietary Not Listed
Proprietary Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary carcinogen, initial date 7/1/87
Proprietary carcinogen, initial date 1/1/88
Proprietary carcinogen, initial date 1/1/88 (gas)
Proprietary carcinogen, initial date 4/1/88

U.S. - California - Proposition 65 - Developmental Toxicity

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary developmental toxicity, initial date 8/7/09
Proprietary Not Listed
Proprietary Not Listed
Proprietary Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary 20 µg/day MADL
Proprietary Not Listed
Proprietary Not Listed
Proprietary Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary 2 µg/day NSRL
Proprietary 30 µg/day NSRL
Proprietary 40 µg/day NSRL (gas)
Proprietary 90 µg/day NSRL (inhalation)

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

- Proprietary
- Proprietary
- Proprietary
- Proprietary

Proprietary female reproductive toxicity, initial date 2/27/87
Proprietary Not Listed
Proprietary Not Listed
Proprietary Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Proprietary
- Proprietary

Proprietary male reproductive toxicity, initial date 8/7/09
Proprietary Not Listed

- Proprietary
- Proprietary

Proprietary Not Listed
Proprietary Not Listed

Other Information

- **WARNING:** This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Revision Date

- 14/September/2015

Preparation Date

- 10/June/2015

Other Information

- Schedule B Number: 3402.20.5100.

Disclaimer/Statement of Liability

- Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Key to abbreviations

NDA = No Data Available

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name

- 303 Fabric Guard

Synonyms

- 588055

Product Code

- 130606; 30601; 30602; 30603; 30604; 30604CSR; 30605; 30605CSR; 30606; 30606CSR; 30607; 30616; 30618; 30618BD; 30618CSR; 30674

Relevant identified uses of the substance or mixture and uses advised against

Recommended use

- Product is used on recommended materials to create water repellency

Restrictions on use

- Read and follow label directions for product use, safety warnings and hazards

Details of the supplier of the safety data sheet

Manufacturer

- Gold Eagle Co.
4400 S. Kildare Avenue
Chicago, IL 60632-4372
United States
<http://www.goldeagle.com/>

Telephone (General) • 773-376-4400

Emergency telephone number

Manufacturer

- 1-800-535-5053 - (INFOTRAC #22283)

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012

- Flammable Liquids 3
Acute Toxicity Oral 4
Aspiration 1
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

Label elements

OSHA HCS 2012

DANGER



- Hazard statements • Flammable liquid and vapour
Harmful if swallowed
May be fatal if swallowed and enters airways
May cause drowsiness or dizziness

Precautionary statements

- Prevention** • Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground and/or bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing mists, vapours, and/or spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • In case of fire: Use appropriate media for extinction.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 Rinse mouth.
 Do NOT induce vomiting.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Keep cool.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients**Substances**

- Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Distillates (petroleum), hydrotreated light	CAS:64742-47-8	0% TO 92%	NDA	OSHA HCS 2012: Flam. Liq. 4; Asp. Tox. 1; STOT SE 3: Narc.
Mineral spirits	NDA	0% TO 5%	NDA	OSHA HCS 2012: Not Classified
Acetic acid, butyl ester	CAS:123-86-4	0% TO 2.4%	Ingestion/Oral-Rat LD50 • 10768 mg/kg Inhalation-Rat LC50 • 390 ppm 4 Hour(s) Skin-Rabbit LD50 • >17600 mg/kg	OSHA HCS 2012: Flam. Liq. 2; Skin Irrit. 2; Eye Irrit. 2B; STOT SE 3: Narc.; STOT SE 3: Resp. Irrit. (Inhl)
Solvent naphtha (petroleum), medium	CAS:64742-88-7	1.7%	NDA	OSHA HCS 2012: Flam. Liq. 3; Asp. Tox. 1
inert acrylic copolymer	NDA	0% TO 1.6%	NDA	OSHA HCS 2012: Not Classified

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • Use carbon dioxide, dry chemical, foam and/or water fog.

Unsuitable Extinguishing Media • No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Flammable; may be ignited by heat, sparks or flames. Containers may explode when heated. Vapor explosion hazard indoors, outdoors or in sewers. Many liquids are lighter than water. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- No data available

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of liquid spill for later disposal. LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage**Precautions for safe handling****Handling**

- Use only in well ventilated areas. Avoid contact with heat and ignition sources. Take precautionary measures against static charges. Do not use sparking tools. All equipment used when handling the product must be grounded. Agitate contents of container before using. Do not aerosolize this product. Inhalation of this product may cause severe illness or death. Avoid breathing vapor or spray mist. Wear a respirator and use proper ventilation. Avoid contact with eyes or skin. Wear glasses or goggles, gloves and other protective clothing. Use the proper equipment. This includes: exhaust fan, respirator with organic vapor cartridge, glasses or goggles, gloves and protective clothing. Before you start application, set up cross ventilation, open doors and windows, place a fan blowing out of a window or door to increase exhaust. Remove all people and animals from the exposure area. All personnel in the exposure area should wear a proper fitting respirator with organic vapor cartridge. Turn off air conditioner or heating units and remove all ignition sources. After spraying, solvent will continue to evaporate, so you must do the following until the solvent vapor concentration is below 300 ppm (about 30-60 minutes): Continue cross ventilation. Keep people and animals out of the spray area. Continue to wear respirators in the spray area. Do not expose the treated fabric to open flame or other ignition sources (such as matches or cigarette lighters). Avoid contamination of tobacco products. Wash hands thoroughly before smoking. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities**Storage**

- Store in a tightly closed container. Store in a well-ventilated place. Store away from oxidizing agents, sources of heat, direct sunlight or rain. No smoking in area of storage.

Section 8 - Exposure Controls/Personal Protection**Control parameters**

		Exposure Limits/Guidelines		
	Result	ACGIH	NIOSH	OSHA
Acetic acid, butyl (86-4)	TWAs	150 ppm TWA	150 ppm TWA; 710 mg/m ³ TWA	150 ppm TWA; 710 mg/m ³ TWA
	STELs	200 ppm STEL	200 ppm STEL; 950 mg/m ³ STEL	Not established

Exposure controls**Engineering Measures/Controls**

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use only appropriately classified electrical equipment.

Personal Protective Equipment**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties**Information on Physical and Chemical Properties****Material Description**

Physical Form	Liquid	Appearance/Description	Clear liquid with a banana fragrance.
Color	Clear	Odor	Banana
Odor Threshold	No data available		

General Properties

Boiling Point	> 150 C(> 302 F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	= 0.85 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	3 Centistoke (cSt, cS) or mm ² /sec @ 40 C(104 F)		

Volatility

Vapor Pressure	0.5 mmHg (torr)	Vapor Density	5.3 Air=1
Evaporation Rate	< 0.1 n-Butyl Acetate = 1	VOC (Wt.)	100 %
VOC (Vol.)	100 %	Volatiles (Wt.)	100 %
Volatiles (Vol.)	100 %		

Flammability

Flash Point	122 F(50 C) CC (Closed Cup)	UEL	5.5 %
LEL	0.6 %	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental

Octanol/Water Partition coefficient	No data available		
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Section 10: Stability and Reactivity**Stability**

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Keep away from heat, sparks, and flame. Incompatible materials.

Incompatible materials

- Strong alkalis, acids, and oxidizers.

Hazardous decomposition products

- Thermal decomposition may include irritating vapors and carbon oxides (CO, CO₂)

Section 11 - Toxicological Information

Information on toxicological effects

		Components
Solvent naphtha (petroleum), medium aliph. (1.7%)	64742-88-7	Multi-dose Toxicity: Inhalation-Mouse TCLo • 2200 mg/m ³ 6 Hour(s) 16 Day(s)-Intermittent; Liver:Changes in liver weight; Reproductive Effects:Paternal Effects:Spermatogenesis; Inhalation-Rat TCLo • 550 mg/m ³ 91 Day(s)-Intermittent; Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis); Kidney, Ureter, and Bladder:Other changes; Inhalation-Rat TCLo • 550 mg/m ³ 2 Year(s)-Intermittent; Endocrine:Other changes; Endocrine:Tumors; Inhalation-Rat TCLo • 550 mg/m ³ 6 Hour(s) 16 Day(s)-Intermittent; Kidney, Ureter, and Bladder:Other changes in urine composition; Kidney, Ureter, and Bladder:Changes in kidney weight; Reproductive Effects:Paternal Effects:Spermatogenesis
Acetic acid, butyl ester (0% TO 2.4%)	123-86-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 10768 mg/kg; Behavioral:Somnolence (general depressed activity); Lungs, Thorax, or Respiration:Other changes; Liver:Other changes; Skin-Rabbit LD50 • >17600 mg/kg; Irritation: Eye-Rabbit • 100 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Multi-dose Toxicity: Inhalation-Rat TCLo • 1500 ppm 6 Hour(s) 13 Week(s)-Intermittent; Behavioral:Somnolence (general depressed activity); Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Inhalation-Rat TCLo • 1500 ppm 6 Hour(s) 13 Week(s)-Continuous; Behavioral:Somnolence (general depressed activity); Behavioral:Food intake (animal); Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain; Reproductive: Inhalation-Rat TCLo • 1500 ppm 7 Hour(s)(7-16D preg); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Inhalation-Rat TCLo • 1500 ppm (6-20D preg); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	OSHA HCS 2012 • Data lacking
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Oral 4
Aspiration Hazard	OSHA HCS 2012 • Aspiration 1
Carcinogenicity	OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	OSHA HCS 2012 • Data lacking
Skin sensitization	OSHA HCS 2012 • Data lacking
•RE	OSHA HCS 2012 • Data lacking
STOT-SE	OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

Toxicity for Reproduction

OSHA HCS 2012 • Data lacking

Germ Cell Mutagenicity

OSHA HCS 2012 • Data lacking

Initial Health Effects**Inhalation****Acute (Immediate)**

- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available.

Skin**Acute (Immediate)**

- May cause mild irritation.

Chronic (Delayed)

- No data available.

Eye**Acute (Immediate)**

- May cause mild irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- Harmful if swallowed. Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)

- No data available.

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information**Toxicity**

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations**Waste treatment methods****P. Liquid waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Limited Quantity	NDA	NDA	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Fire

Inventory		
Component	CAS	TSCA
Acetic acid, butyl ester	123-86-4	Yes
Distillates (petroleum), hydrotreated light	64742-47-8	Yes
Solvent naphtha (petroleum), medium aliph.	64742-88-7	Yes

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

- | | | |
|---|------------|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Not Listed |
| • Acetic acid, butyl ester | 123-86-4 | Not Listed |
| • Solvent naphtha (petroleum), medium aliph. | 64742-88-7 | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

- | | | |
|---|------------|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Not Listed |
| • Acetic acid, butyl ester | 123-86-4 | Not Listed |
| • Solvent naphtha (petroleum), medium aliph. | 64742-88-7 | Not Listed |

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

- | | | |
|---|------------|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Not Listed |
| • Acetic acid, butyl ester | 123-86-4 | Not Listed |
| • Solvent naphtha (petroleum), medium aliph. | 64742-88-7 | Not Listed |

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

- | | | |
|---|------------|------------|
| • Distillates (petroleum), hydrotreated light | 64742-47-8 | Not Listed |
| • Acetic acid, butyl ester | 123-86-4 | Not Listed |
| • Solvent naphtha (petroleum), medium aliph. | 64742-88-7 | Not Listed |

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	5000 lb final RQ (listed under Butyl acetate); 2270 kg final RQ (listed under Butyl acetate)
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CWA (Clean Water Act) - Hazardous Substances

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	(listed under Butyl acetate)
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - CWA (Clean Water Act) - Toxic Pollutants

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Acetic acid, butyl ester	123-86-4	Not Listed
• Solvent naphtha (petroleum), medium aliph.	64742-88-7	Not Listed

Section 16 - Other Information

Revision Date	• 14/September/2015
Preparation Date	• 01/July/2012
Disclaimer/Statement of liability	• Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.
Key to abbreviations NDA = No Data Available	

SAFETY DATA SHEET

674806

Section 1. Identification

Product name : CHASSIS SHIELD™ Rust Inhibitor
Product code : 674806
Other means of identification : Not available.
Product type : Aerosol.
Relevant identified uses of the substance or mixture and uses advised against
Not applicable.

Manufacturer : Distributed by:
Fastenal Company
2001 Theurer Blvd.
Winona, MN 55987

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : (507) 454-5374

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency phone Number : (800) 424-9300

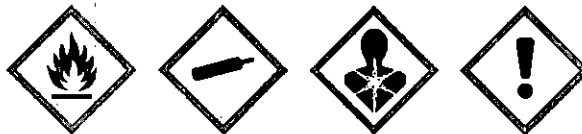
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 25%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 40%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 40%

GHS label elements

Hazard pictograms :



Signal word :

Danger

Section 2. Hazards identification

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response : Get medical attention if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer. FOR INDUSTRIAL USE ONLY.
Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Heavy Paraffinic Oil	≥50 - ≤75	64742-65-0
Kerosine, petroleum	≥10 - ≤25	8008-20-6
Aliphatic Solvent	≥10 - ≤25	64742-47-8
Propane	≥10 - ≤25	74-98-6
2-Butoxyethanol	≤10	111-76-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, handling any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Heavy Paraffinic Oil	OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2016). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist
Kerosine (petroleum)	NIOSH REL (United States, 10/2013). TWA: 100 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2016). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Aliphatic Solvent	ACGIH TLV (United States, 3/2016). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Propane	NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 6/2016).

Section 8. Exposure controls/personal protection

2-Butoxyethanol

TWA: 1000 ppm 8 hours.
 TWA: 1800 mg/m³ 8 hours.
ACGIH TLV (United States, 3/2016).
 TWA: 20 ppm 8 hours.
NIOSH REL (United States, 10/2016).
Absorbed through skin.
 TWA: 5 ppm 10 hours.
 TWA: 24 mg/m³ 10 hours.
OSHA PEL (United States, 6/2016).
Absorbed through skin.
 TWA: 50 ppm 8 hours.
 TWA: 240 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Kerosine (petroleum)	<p>CA British Columbia Provincial (Canada, 5/2015). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. CA Ontario Provincial (Canada, 7/2015). Absorbed through skin. TWA: 200 mg/m³ 8 hours. CA Alberta Provincial (Canada, 4/2009). Absorbed through skin. 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 250 mg/m³, (measured as total hydrocarbon vapour) 15 minutes. TWA: 200 mg/m³, (measured as total hydrocarbon vapour) 8 hours.</p>
Aliphatic Solvent	<p>CA British Columbia Provincial (Canada, 7/2016). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. CA Alberta Provincial (Canada, 4/2009). Absorbed through skin. 8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. CA Ontario Provincial (Canada, 7/2015). Absorbed through skin. TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.</p>
Propane	<p>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2016). TWA: 1000 ppm 8 hours. CA Québec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 1000 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p>
2-Butoxyethanol	<p>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 97 mg/m³ 8 hours.</p>

Section 8. Exposure controls/personal protection

8 hrs OEL: 20 ppm 8 hours.
CA British Columbia Provincial (Canada, 7/2016).
 TWA: 20 ppm 8 hours.
CA Ontario Provincial (Canada, 7/2015).
 TWA: 20 ppm 8 hours.
CA Québec Provincial (Canada, 1/2014).
 TWAEV: 20 ppm 8 hours.
 TWAEV: 97 mg/m³ 8 hours.
CA Saskatchewan Provincial (Canada, 7/2013).
 STEL: 30 ppm 15 minutes.
 TWA: 20 ppm 8 hours.

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Kerosine (petroleum)	NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin.
Aliphatic Solvent	LMPE-PPT: 200 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2016). Absorbed through skin.
Propane	TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016).
2-Butoxyethanol	TWA: 1000 ppm 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin. TWA: 20 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 1 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.7%
Upper: 10.6%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.78
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 36.019 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heavy Paraffinic Oil	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Kerosine (petroleum)	LD50 Oral	Rat	15 g/kg	-
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kerosine (petroleum)	Skin - Moderate irritant	Rabbit	-	0.5 Milliliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 Percent	-
	Skin - Severe irritant	Rabbit	-	500 milligrams	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Kerosine (petroleum)	-	3	-
2-Butoxyethanol	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Kerosine (petroleum)	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Aliphatic Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract

Section 11. Toxicological information

2-Butoxyethanol	Category 3	Not applicable.	Irritation and Narcotic effects Respiratory tract irritation and Narcotic effects
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Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Kerosine (petroleum)	Category 2	Not determined	Not determined
Aliphatic Solvent	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
2-Butoxyethanol	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Kerosine (petroleum)	ASPIRATION HAZARD - Category 1
Aliphatic Solvent	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Initial immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Oral : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	18571.4 mg/kg
Dermal	12571.4 mg/kg
Inhalation (vapors)	125.7 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Aromatic Solvent 2-butoxyethanol	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days
	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.






Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not

Section 13. Disposal considerations

puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- ERG No. 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). ERG No. 126	- ERG No. 126	-	Emergency schedules F-D, S-U

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	4
Physical hazards	0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

- Date of printing : 1/25/2018
- Date of issue/Date of revision : 1/25/2018
- Date of previous issue : No previous validation
- Version : 1
- Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the

Section 16. Other information

product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from other source.

MATERIAL SAFETY DATA SHEET

OSHA - Meets 29 CFR 1910.1200 Standards

HMIS HAZARD RATINGS

E.P.A. *Environmental Products of America, Inc.*

HEALTH	0	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	0	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	Not Regulated		
HAZARD CLASS / PKG GRP:	None / None	REF:	Not Applicable
IDENTIFICATION NUMBER:	None	LABEL:	None Required

SECTION 1 - PRODUCT / COMPANY IDENTIFICATION

IDENTITY (AS USED ON LABEL AND LIST) WASH & WAX CONCENTRATE	Page 1 of 2
MANUFACTURER'S NAME Environmental Products Of America, Inc.	EMERGENCY TELEPHONE NUMBER Chemtrec (800) 424-9300
ADDRESS (NUMBER, STREET, P.O. BOX) P.O. Box 100576	TELEPHONE NUMBER FOR INFORMATION (205) 951-5100
(CITY, STATE AND ZIP CODE) Birmingham, AL 35210-	DATE PREPARED: November 6, 2002 SUPERSEDES: October 12, 2000

SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S))	CAS #	% (OPTIONAL)	OSHA PEL		ACGIH TWA		SARA TITLE III	RQ LBS
			PPM	MG/M ³	PPM	MG/M ³		
Isopropyl alcohol	67-63-0		400	980	500	1225		

SECTION 3 - HEALTH HAZARD DATA

ROUTES OF ENTRY - SIGNS AND SYMPTOMS OF EXPOSURE	EMERGENCY AND FIRST AID PROCEDURES
INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.	Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.
SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate reddening, swelling and possible necrosis.	Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.
EYES: Contact causes severe irritation and pain associated with redness and swelling of the conjunctiva.	Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.
INGESTION: Moderately toxic; may cause headache, dizziness, diarrhea and general weakness; large doses may result in red blood cell hemolysis.	Give two glasses of water for dilution; induce vomiting by sticking fingers down throat; never give anything by mouth to an unconscious person; seek medical attention.
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute effects are possible irritation and discomfort; no known chronic effects have been established.	
CARCINOGENICITY No additional information	NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin, eye, or respiratory disorders may become aggravated through prolonged exposure.	

MATERIAL SAFETY DATA SHEETIDENTITY (AS USED ON LABEL AND LIST)
WASH & WAX CONCENTRATEPage 2 of 2
Date: November 6, 2002**SECTION 4 - FIRE FIGHTING MEASURES**FLASH POINT (METHOD USED)
Non-flammable

FLAMMABLE LIMITS

LEL: Not applicable

UEL: Not applicable

EXTINGUISHING MEDIA

Carbon dioxide, water, water fog, dry chemical, chemical foam

SPECIAL FIRE FIGHTING PROCEDURES

Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

SECTION 5 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Small spills - wash to sanitary sewer with plenty of water. Large spills - soak up with approved absorbent, shovel product into approved container for disposal. Wash area with plenty of water.

SECTION 6 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Keep this and other chemicals out of reach of children.

SECTION 7 - EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): None required while threshold limits (Section II) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 for complete regulations.

VENTILATION

LOCAL EXHAUST: Required

SPECIAL: To maintain minimum TWA and STEL levels.

MECHANICAL (GENERAL): Yes

OTHER: Engineering and work controls as required.

PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.

EYE PROTECTION: Safety goggles with side shields

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

SECTION 8 - PHYSICAL / CHEMICAL PROPERTIES

BOILING POINT

200° F

SPECIFIC GRAVITY (WATER = 1)

1.010

VAPOR PRESSURE (MM Hg)

17 mm Hg @ 20 ° C

pH

8.0

VAPOR DENSITY (AIR = 1)

< 1

EVAPORATION RATE (WATER = 1)

< 1

SOLUBILITY IN WATER

Miscible

% VOLATILE (BY WEIGHT)

85%

APPEARANCE AND ODOR

Viscous colorless liquid, characteristic odor

SECTION 9 - STABILITY AND REACTIVITY

STABILITY

UNSTABLE:

CONDITIONS TO AVOID:

STABLE: XXX

Extreme temperatures

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong oxidizers, strong acids

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.

HAZARDOUS POLYMERIZATION

MAY OCCUR:

CONDITIONS TO AVOID:

WILL NOT OCCUR: XXX

None

SECTION 10 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. Products classified as non-hazardous may become hazardous waste upon contact with other products. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals.

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

MATERIAL SAFETY DATA SHEET

OSHA - Meets 29 CFR 1910.1200 Standards

HMIS HAZARD RATINGS

E.P.A. *Environmental Products of America, Inc.*

HEALTH	1	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	2	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	Combustible liquid, n.o.s. (petroleum distillates)		
HAZARD CLASS / PKG GRP:	Combustible / III	REF:	49 CFR 173.150, .203, .241
IDENTIFICATION NUMBER:	NA 1993	LABEL:	None Required

SECTION 1 - PRODUCT / COMPANY IDENTIFICATION

IDENTITY (AS USED ON LABEL AND LIST) RENEW 3000	Page 1 of 2
MANUFACTURER'S NAME Environmental Products Of America, Inc.	EMERGENCY TELEPHONE NUMBER Chemtrec (800) 424-9300
ADDRESS (NUMBER, STREET, P.O. BOX) P.O. Box 100576	TELEPHONE NUMBER FOR INFORMATION (205) 951-5100
(CITY, STATE AND ZIP CODE) Birmingham, AL 35210-	DATE PREPARED: November 6, 2002 SUPERSEDES: October 12, 2000

SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S))	CAS #	% (OPTIONAL)	OSHA PEL		ACGIH TWA		SARA	RQ
			PPM	MG/M ³	PPM	MG/M ³	TITLE III	LBS
Petroleum distillate, aliphatic	64742-48-9		500	2000				
Paraffinic hydrocarbon	64771-72-8		500	2000				

SECTION 3 - HEALTH HAZARD DATA

ROUTES OF ENTRY - SIGNS AND SYMPTOMS OF EXPOSURE	EMERGENCY AND FIRST AID PROCEDURES
INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.	Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.
SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis.	Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.
EYES: High vapor concentration or contact may cause irritation and discomfort.	Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.
INGESTION: May result in vomiting; aspiration of vomitus into the lungs must be avoided; DO NOT induce vomiting. Minute amounts aspirated into the lungs can produce severe lung injury, chemical pneumonitis, pulmonary edema or death.	DO NOT induce vomiting; if vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs; seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute effects are possible irritation and discomfort; no known chronic effects have been established. Harmful or fatal if swallowed. Vapor harmful.	
CARCINOGENICITY No additional information	NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin, eye, or respiratory disorders may become aggravated through prolonged exposure.	

MATERIAL SAFETY DATA SHEETIDENTITY (AS USED ON LABEL AND LIST)
RENEW 3000

RTU

Page 2 of 2
Date: November 6, 2002**SECTION 4 - FIRE FIGHTING MEASURES**FLASH POINT (METHOD USED)
180° F PMCC

FLAMMABLE LIMITS

LEL: Not determined

UEL: Not determined

EXTINGUISHING MEDIA

Carbon dioxide, water fog, dry chemical, chemical foam

SPECIAL FIRE FIGHTING PROCEDURES

Firefighters must wear full facepiece self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire-exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material is flammable!

SECTION 5 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: COMBUSTIBLE - Evacuate and ventilate area; remove all sources of sparks, ignition and open flames; confine and absorb into approved absorbent; place material into approved containers for disposal; do not wash to sewer or waterway.

SECTION 6 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: This material is combustible. It should be stored in tightly closed containers in a cool, well ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors.

SECTION 7 - EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): None required while threshold limits (Section II) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 for complete regulations.

VENTILATION

LOCAL EXHAUST: Required

SPECIAL: To maintain minimum TWA and STEL levels.

MECHANICAL (GENERAL): Yes

OTHER: Engineering and work controls as required.

PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.

EYE PROTECTION: Safety goggles with side shields

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

SECTION 8 - PHYSICAL / CHEMICAL PROPERTIESBOILING POINT
435° FSPECIFIC GRAVITY (WATER = 1)
0.990VAPOR PRESSURE (MM Hg)
< 1 mm Hg @ 20° CpH
8.0VAPOR DENSITY (AIR = 1)
6EVAPORATION RATE (WATER = 1)
< 1SOLUBILITY IN WATER
Appreciable% VOLATILE (BY WEIGHT)
83%**APPEARANCE AND ODOR**

White opaque liquid, characteristic hydrocarbon odor

SECTION 9 - STABILITY AND REACTIVITY**STABILITY**

UNSTABLE:

CONDITIONS TO AVOID:

STABLE: XXX

Extreme temperatures, open flames

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong oxidizers, strong acids

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.

HAZARDOUS POLYMERIZATION

MAY OCCUR:

CONDITIONS TO AVOID:

WILL NOT OCCUR: XXX

None

SECTION 10 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce concentrated hazardous vapors or fumes in a disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations for ignitable materials. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

Information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

MATERIAL SAFETY DATA SHEET

OSHA - Meets 29 CFR 1910.1200 Standards

HMIS HAZARD RATINGS

E.P.A. *Environmental Products of America, Inc.*

HEALTH	0	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	0	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	Not Regulated		
HAZARD CLASS / PKG GRP:	None / None	REF:	Not Applicable
IDENTIFICATION NUMBER:	None	LABEL:	None Required

SECTION 1 - PRODUCT / COMPANY IDENTIFICATION

IDENTITY (AS USED ON LABEL AND LIST)
BLACK STREAK

RTU

Page 1 of 2

MANUFACTURER'S NAME
Environmental Products Of America, Inc.

EMERGENCY TELEPHONE NUMBER
Chemtrec (800) 424-9300

ADDRESS (NUMBER, STREET, P.O. BOX)
P.O. Box 100576

TELEPHONE NUMBER FOR INFORMATION
(205) 951-5100

(CITY, STATE AND ZIP CODE)
Birmingham, AL 35210-

DATE PREPARED: November 6, 2002
SUPERSEDES: October 12, 2000

SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS COMPONENTS

(SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S))

CAS #

%

(OPTIONAL)

ACGIH TWA

PPM

MG/M³

ACGIH STEL

PPM

MG/M³

SARA

TITLE III

RQ

LBS

Sodium metasilicate

6834-92-0

6

SECTION 3 - HEALTH HAZARD DATA

ROUTES OF ENTRY - SIGNS AND SYMPTOMS OF EXPOSURE

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Breathing concentrated vapors may cause slight irritation of respiratory tract.

Remove affected person to fresh air; if symptoms persist seek medical attention.

SKIN: Prolonged contact may cause slight irritation.

Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

EYES: Contact with eyes will cause irritation.

Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

INGESTION: May cause gastric distress, vomiting and diarrhea.

Give two glasses of water for dilution; DO NOT induce vomiting; seek medical attention.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute effects are possible irritation and discomfort; no known chronic effects have been established.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

*No additional information

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin, eye, or respiratory disorders may become aggravated through prolonged exposure.

MATERIAL SAFETY DATA SHEET			
IDENTITY (AS USED ON LABEL AND LIST) BLACK STREAK		RTU	Page 2 of 2 Date: November 6, 2002
SECTION 4 - FIRE FIGHTING MEASURES			
FLASH POINT (METHOD USED) Non-flammable	FLAMMABLE LIMITS	LEL: Not applicable	UEL: Not applicable
EXTINGUISHING MEDIA Carbon dioxide, water, water fog, dry chemical, chemical foam			
SPECIAL FIRE FIGHTING PROCEDURES Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			
SECTION 5 - ACCIDENTAL RELEASE MEASURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Small spills - wash to sanitary sewer with plenty of water. Large spills - soak up with approved absorbent, shovel product into approved container for disposal. Wash area with plenty of water.			
SECTION 6 - HANDLING AND STORAGE			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Keep this and other chemicals out of reach of children.			
SECTION 7 - EXPOSURE CONTROLS / PERSONAL PROTECTION			
RESPIRATORY PROTECTION (SPECIFY TYPE): None required; however, if misting occurs, NIOSH approved respirator capable of removing particulate from air must be worn. Refer to 29 CFR 1910.134 for complete regulations.			
VENTILATION	LOCAL EXHAUST: Not necessary MECHANICAL (GENERAL): Yes	SPECIAL: None OTHER: None	
PROTECTIVE GLOVES: Neoprene or rubber gloves with cuffs.		EYE PROTECTION: Safety goggles with side shields	
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby			
WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.			
SECTION 8 - PHYSICAL / CHEMICAL PROPERTIES			
BOILING POINT 212° F		SPECIFIC GRAVITY (WATER = 1) 1.010	
VAPOR PRESSURE (MM Hg) 17 mm Hg @ 20 ° C		pH 13.1	
VAPOR DENSITY (AIR = 1) < 1		EVAPORATION RATE (WATER = 1) < 1	
SOLUBILITY IN WATER Complete		% VOLATILE (BY WEIGHT) 97%	
APPEARANCE AND ODOR Colorless liquid, characteristic odor			
SECTION 9 - STABILITY AND REACTIVITY			
STABILITY	UNSTABLE: STABLE: XXX	CONDITIONS TO AVOID: Extreme temperatures	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids			
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.			
HAZARDOUS POLYMERIZATION	MAY OCCUR: WILL NOT OCCUR: XXX	CONDITIONS TO AVOID: None	
SECTION 10 - DISPOSAL CONSIDERATIONS			
WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. Products classified as non-hazardous may become hazardous waste upon contact with other products. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals.			
<p>The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.</p>			
MSDS PREPARED BY: CDB, Inc., P.O. Box 5604, Lakeland, FL 33807 (863) 644 - 3298			www.compdatabase.com



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

DAP® 100% SILICONE RUBBER WINDOW, DOOR & SIDING SEALANT is a durable, 100% waterproof and weatherproof sealant for sealing out drafts, water and moisture around windows, doors, siding, gutters, flashing, pipes, vents and more. It stays flexible to withstand expansion and contraction without cracking or losing adhesion. Cured sealant is mold and mildew resistant. Interior/exterior use.



PACKAGING	COLOR	UPC
2.8 fl oz (82.8 mL)	White	7079800752
2.8 fl oz (82.8 mL)	Clear	7079800753
9.8 fl oz (289 mL)	White	7079808646
9.8 fl oz (289 mL)	Clear	7079808641
9.8 fl oz (289 mL)	Almond	7079808649
9.8 fl oz (289 mL)	Aluminum	7079808643
9.8 fl oz (289 mL)	Bronze	7079808647
9.8 fl oz (289 mL)	Black	7079808642

KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
- 100% waterproof & weatherproof seal
- Flexible
- Cured sealant is mold & mildew resistant
- Interior/exterior use



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed 1/2". If joint depth exceeds 1/2", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
- Not recommended for continuous underwater use, filling butt joints, surface defects, tuck-pointing, chimneys, stovepipes or fireplace applications. Not recommended for structural glazing.
- Corrodes some metals. *Not recommended for use on or near brass, copper or copper alloys, zinc, iron, galvanized metals or other surfaces prone to attack by weak acids.
- Not for oily woods or cementitious surfaces. Substrates made of methylmethacrylate, polycarbonate, polypropylene, polyethylene and polytetrafluoroethylene do not allow for best adhesion and compatibility with sealant. Try test area before using.
- **Not paintable.** Paint substrate surface before applying sealant.
- Store below 80°F in dry place for optimal shelf life.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of old caulk, dirt, dust & other foreign material.

Product Application

1. If using squeeze tube, remove cap & cut nozzle at 45° angle to desired bead size. Unscrew nozzle & remove foil seal. Replace nozzle.
2. If using cartridge, cut nozzle at a 45° angle to desired bead size. Puncture inner foil seal. Load into caulk gun.
3. Fill gap or crack with sealant.
4. If necessary, tool or smooth the bead of sealant with a finishing tool before the sealant skins over.
5. Allow sealant to cure for at least 12 hours before exposing to water.



TECHNICAL DATA SHEET

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6. Do not touch or clean sealant for 24 hours. Sealant reaches full cure in 24 hours.
7. Clean up excess uncured sealant from surface and tools with mineral spirits. Scrape or cut away excess cured sealant. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water.
8. Sealant is not paintable. Paint surfaces prior to applying sealant.
9. Reseal cartridge/tube for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
Appearance/Consistency	Smooth, gunnable paste
Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Will not freeze
Shelf Life	24 months
Coverage	9.8 oz: 53 linear feet at 3/16" diameter bead 2.8 oz: 15 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	-35°F to 140°F
Tooling Time (Working Time)	5-10 minutes
Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



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Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

Remove excess uncured sealant from surfaces and tools with mineral spirits. Excess cured sealant must be cut or scraped away. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water. Store container in temperatures below 80°F and in a dry place.

SAFETY

See product label or Safety Data Sheet (SDS) for health and safety information. You can request a SDS by visiting our website at dap.com or calling 888-DAP-TIPS.

WARRANTY

WARRANTY: If product fails to perform when used as directed, within one year of date of purchase, call 888-DAP-TIPS, with your sales receipt and product container available, for replacement product or sales price refund. DAP Products Inc. will not be responsible for incidental or consequential damages.

COMPANY IDENTIFICATION

Manufactured for: DAP Products Inc., 2400 Boston Street, Baltimore, Maryland 21224

Usage Information: Call 888-DAP-TIPS or visit dap.com & click on "Ask the Expert"

Order Information: 800-327-3339 or orders@dap.com

Fax Number: 410-558-1068

Also, visit the DAP website at dap.com

SAFETY DATA SHEET

DA1684

Section 1. Identification

Product name : DUPLI-COLOR® Acrylic Enamel Aerosol Paint
Chrome Aluminum

Product code : DA1684

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against
Paint or paint related material.

Manufacturer : Dupli-Color Products Company
Cleveland, OH 44115

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : (800) 247-3270

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 21.2% (oral), 21.2% (dermal), 21.2% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements	: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Storage	: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Ethylbenzene	≥25 - ≤43	100-41-4
Acetone	≥10 - ≤25	67-64-1
Propane	≥10 - ≤25	74-98-6
Butane	≥10 - ≤25	106-97-8
Aluminum	≤5	7429-90-5
Stoddard Solvent	≤3	8052-41-3
Toluene	≤0.3	108-88-3

concentration shown as a range is to protect confidentiality or is due to batch variation.

Date of issue/Date of revision	: 4/19/2021	Date of previous issue	: 10/12/2020	Version	: 14	2/18
DA1684	DUPLI-COLOR® Acrylic Enamel Aerosol Paint Chrome Aluminum			SHW-85-NA-GHS-US		

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight

Date of issue/Date of revision

: 4/19/2021

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Version : 14

3/18

DA1684

DUPLI-COLOR® Acrylic Enamel Aerosol Paint
Chrome Aluminum

SHW-85-NA-GHS-US

Section 4. First aid measures

- increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Ethylbenzene	100-41-4	ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
Acetone	67-64-1	ACGIH TLV (United States, 3/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours.
Propane	74-98-6	NIOSH REL (United States, 10/2016). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). Oxygen Depletion [Asphyxiant]. Explosive potential. NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes.
Butane	106-97-8	NIOSH REL (United States, 10/2016). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2020). Explosive potential. STEL: 1000 ppm 15 minutes.
Aluminum	7429-90-5	NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total ACGIH TLV (United States, 3/2020). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ , (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ , (as Al) 8 hours. Form: Total dust

Section 8. Exposure controls/personal protection

Stoddard Solvent		8052-41-3	ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 525 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 350 mg/m ³ 10 hours. CEIL: 1800 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 2900 mg/m ³ 8 hours.
Toluene		108-88-3	OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 375 mg/m ³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m ³ 15 minutes. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.

Occupational exposure limits (Canada)

Ingredient name		CAS #	Exposure limits
Ethylbenzene		100-41-4	CA Alberta Provincial (Canada, 6/2018). ☐ 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m ³ 8 hours. 15 min OEL: 543 mg/m ³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m ³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m ³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
acetone		67-64-1	CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1200 mg/m ³ 8 hours. 15 min OEL: 1800 mg/m ³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. CA British Columbia Provincial (Canada, 1/2020). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. CA Quebec Provincial (Canada, 7/2019). TWAEV: 500 ppm 8 hours.

Section 8. Exposure controls/personal protection

Normal propane	74-98-6	<p>TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Oxygen Depletion [Asphyxiant]. Explosive potential.</p>
Butane	106-97-8	<p>CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 1000 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Explosive potential. STEL: 1000 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p>
Stoddard solvent	8052-41-3	<p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 572 mg/m³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). TWA: 290 mg/m³ 8 hours. STEL: 580 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 6/2019). TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). TWAEV: 100 ppm 8 hours. TWAEV: 525 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
Toluene	108-88-3	<p>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 50 ppm 8 hours.</p>

Section 8. Exposure controls/personal protection

8 hrs OEL: 188 mg/m³ 8 hours.
CA British Columbia Provincial (Canada, 1/2020).
 TWA: 20 ppm 8 hours.
CA Ontario Provincial (Canada, 6/2019).
 TWA: 20 ppm 8 hours.
CA Quebec Provincial (Canada, 7/2019).
Absorbed through skin.
 TWAEV: 50 ppm 8 hours.
 TWAEV: 188 mg/m³ 8 hours.
CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.
 STEL: 60 ppm 15 minutes.
 TWA: 50 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Ethylbenzene	100-41-4	NOM-010-STPS-2014 (Mexico, 4/2016). <input type="checkbox"/>
Acetone	67-64-1	TWA: 20 ppm 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016).
Propane	74-98-6	TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes. NOM-010-STPS-2014 (Mexico, 4/2016).
Butane	106-97-8	TWA: 1000 ppm 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016).
Stoddard Solvent	8052-41-3	TWA: 1000 ppm 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016).
Toluene	108-88-3	TWA: 100 ppm 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 20 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.8%
Upper: 12.8%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.74
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm²/s (<20.5 cSt)
- Molecular weight** : Not applicable.

Aerosol product

- Type of aerosol** : Spray
- Heat of combustion** : 28.29 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame).
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Oral	Rat	636 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Stoddard Solvent	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
Toluene	Eyes - Mild irritant	Human	-	100 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
Toluene	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Moderate irritant	Rabbit	-	435 mg	-
Toluene	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Sensitization

Date of issue/Date of revision	: 4/19/2021	Date of previous issue	: 10/12/2020	Version	: 14	11/18
DA1684	DUPLI-COLOR® Acrylic Enamel Aerosol Paint Chrome Aluminum			SHW-85-NA-GHS-US		

Section 11. Toxicological information

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Ethylbenzene	-	2B	-
Toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Ethylbenzene	Category 3	-	Respiratory tract irritation
Acetone	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Propane	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Butane	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Stoddard Solvent	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Toluene	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Ethylbenzene	Category 2	-	-
Acetone	Category 2	-	-
Propane	Category 2	-	-
Butane	Category 2	-	-
Stoddard Solvent	Category 1	-	-
Toluene	Category 2	-	-

Aspiration hazard

Section 11. Toxicological information

Name	Result
Ethylbenzene	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Stoddard Solvent	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 nausea or vomiting
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Section 11. Toxicological information

Potential chronic health effects

Not available.

- Inhalation** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	9185.31 mg/kg
Inhalation (vapors)	28.87 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Acetone	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - Acartia tonsa - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
Aluminum	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
	Acute LC50 38000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 120 µg/l Fresh water	Fish - Oncorhynchus mykiss - Embryo	96 hours
Toluene	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling,	48 hours

Section 12. Ecological information

	Acute LC50 5500 µg/l Fresh water Chronic NOEC 1000 µg/l Fresh water	Weanling) Fish - Oncorhynchus kisutch - Fry Daphnia - Daphnia magna	96 hours 21 days
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Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ethylbenzene	-	-	Readily
Acetone	-	-	Readily
Toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Toluene	-	90	low

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Section 14. Transport information

Additional information	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).	-	-	Emergency schedules F-D, S-U
	<u>ERG No.</u> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	<u>ERG No.</u> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	<u>ERG No.</u> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists :

- Australia inventory (AIIIC):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (CSCL):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory (KECI):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Thailand inventory:** Not determined.
- Turkey inventory:** Not determined.
- Vietnam inventory:** Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	3
Flammability	4
Physical hazards	3

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/19/2021

Date of issue/Date of revision : 4/19/2021

Date of previous issue : 10/12/2020

Version : 14

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Date of issue/Date of revision	: 4/19/2021	Date of previous issue	: 10/12/2020	Version	: 14	17/18
DA1684	DUPLI-COLOR® Acrylic Enamel Aerosol Paint			SHW-85-NA-GHS-US		
	Chrome Aluminum					

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® KWIK SEAL® Adhesive Caulk

PRODUCT DESCRIPTION

DAP® KWIK SEAL® KITCHEN & BATH ADHESIVE CAULK is an easy-to-use acrylic latex that bonds like a glue and seals like a caulk. Once cured, it is mold and mildew resistant and 100% waterproof. It is easy to apply, paintable, low in odor and water clean-up. Interior use.



PACKAGING	COLOR	UPC
10.1 fl oz (300 mL) Cartridge	White	7079818002
5.5 fl oz (162 mL) Tube	White	7079818001
5.5 fl oz (162 mL) Tube	Almond	7079818013

KEY FEATURES & BENEFITS

- Cured caulk is mold & mildew resistant
- 100% waterproof seal
- Bonds like glue, seals like a caulk
- Paintable
- Easy water clean-up & low odor
- VOC compliant
- Interior use

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Tubs
- Showers
- Sinks
- Backsplashes
- Vanities
- Countertops
- Fixtures
- Pipes
- Repairing loose tiles



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ADHERES TO:

- Wood – painted & unpainted
- Ceramic
- Porcelain
- Glass
- Most metals
- Most plastics
- Drywall
- Plaster
- Brick
- Stone
- Most common building materials

FOR BEST RESULTS

- Apply in temperatures above 40°F.
- Not for continuous underwater use, high temperature surfaces or surface defects.
- Joint size should not exceed 3/8" wide x 3/8" deep. If joint depth exceeds 3/8", use backer rod material.
- **Wait 36 hours before exposing to water.**
- Store caulk away from extreme heat or cold.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of all old caulk, dirt and other foreign material. Rubbing alcohol /Isopropyl alcohol is recommended for removing soap film and soil.

Product Application

1. If using the squeeze tube, remove cap.
2. Cut nozzle at 45° angle to desired bead size.
3. If using the cartridge, load into caulk gun.
4. Fill gap or joint with caulk.
5. If necessary, tool or smooth the bead of caulk with a finishing tool before caulk skins over.
6. Clean up excess wet caulk with a damp sponge before it skins over. Excess dried caulk must be cut or scraped away. Clean hands and tools with warm water and soap.
7. Allow caulk to dry at least 2 hours (longer in cool or humid conditions) before painting with latex or oil-based paints.
8. **Wait 36 hours before exposing to water.**
9. Reseal container for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties

Appearance/Consistency	Gunnable, non-sag paste
Base Polymer	Acrylic latex copolymer



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Filler	Calcium carbonate
Volatile	Water
Weight % Solids	81%
Density (lbs per gallon)	13.9
Odor	Very mild
Clean Up	Water
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Passes 5 Cycles
Shelf Life	12 months
Coverage	10.1 fl oz: 55 linear feet at a 3/16" diameter bead 5.5 fl oz: 30 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	40°F to 100°F
Tooling Time (Working Time)	10 minutes
Tack Free Time	30 minutes
Full Dry Through	36 hours
Return to Service Time	36 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-20°F to 150°F
Water Ready Time	36 hours
Paint Ready Time	2 hours
Mildew Resistance	Cured caulk is mold & mildew resistant

CLEAN UP & STORAGE

Clean up excess wet caulk with a damp sponge before it skins over. Excess dried caulk must be cut or scraped away. Clean hands and tools with warm water and soap. Store container in a cool, dry place away from extreme heat or cold.

SAFETY

See product label or Safety Data Sheet (SDS) for health and safety information. You can request a SDS by visiting our website at dap.com or calling 888-DAP-TIPS.



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WARRANTY

WARRANTY: If product fails to perform when used as directed, within one year of date of purchase, call 888-DAP-TIPS, with your sales receipt and product container available, for replacement product or sales price refund. DAP Products Inc. will not be responsible for incidental or consequential damages.

COMPANY IDENTIFICATION

Manufacturer: DAP Products Inc., 2400 Boston Street, Baltimore, Maryland 21224

Usage Information: Call 888-DAP-TIPS or visit dap.com & click on "Ask the Expert"

Order Information: 800-327-3339 or orders@dap.com

Fax Number: 410-558-1068

Also, visit the DAP website at dap.com



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

DAP® 100% SILICONE RUBBER WINDOW, DOOR & SIDING SEALANT is a durable, 100% waterproof and weatherproof sealant for sealing out drafts, water and moisture around windows, doors, siding, gutters, flashing, pipes, vents and more. It stays flexible to withstand expansion and contraction without cracking or losing adhesion. Cured sealant is mold and mildew resistant. Interior/exterior use.



PACKAGING	COLOR	UPC
2.8 fl oz (82.8 mL)	White	7079800752
2.8 fl oz (82.8 mL)	Clear	7079800753
9.8 fl oz (289 mL)	White	7079808646
9.8 fl oz (289 mL)	Clear	7079808641
9.8 fl oz (289 mL)	Almond	7079808649
9.8 fl oz (289 mL)	Aluminum	7079808643
9.8 fl oz (289 mL)	Bronze	7079808647
9.8 fl oz (289 mL)	Black	7079808642

KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
- 100% waterproof & weatherproof seal
- Flexible
- Cured sealant is mold & mildew resistant
- Interior/exterior use



TECHNICAL DATA SHEET

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SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed 1/2". If joint depth exceeds 1/2", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
- Not recommended for continuous underwater use, filling butt joints, surface defects, tuck-pointing, chimneys, stovepipes or fireplace applications. Not recommended for structural glazing.
- Corrodes some metals. *Not recommended for use on or near brass, copper or copper alloys, zinc, iron, galvanized metals or other surfaces prone to attack by weak acids.
- Not for oily woods or cementitious surfaces. Substrates made of methylmethacrylate, polycarbonate, polypropylene, polyethylene and polytetrafluoroethylene do not allow for best adhesion and compatibility with sealant. Try test area before using.
- **Not paintable.** Paint substrate surface before applying sealant.
- Store below 80°F in dry place for optimal shelf life.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of old caulk, dirt, dust & other foreign material.

Product Application

1. If using squeeze tube, remove cap & cut nozzle at 45° angle to desired bead size. Unscrew nozzle & remove foil seal. Replace nozzle.
2. If using cartridge, cut nozzle at a 45° angle to desired bead size. Puncture inner foil seal. Load into caulk gun.
3. Fill gap or crack with sealant.
4. If necessary, tool or smooth the bead of sealant with a finishing tool before the sealant skins over.
5. Allow sealant to cure for at least 12 hours before exposing to water.



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6. Do not touch or clean sealant for 24 hours. Sealant reaches full cure in 24 hours.
7. Clean up excess uncured sealant from surface and tools with mineral spirits. Scrape or cut away excess cured sealant. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water.
8. Sealant is not paintable. Paint surfaces prior to applying sealant.
9. Reseal cartridge/tube for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
Appearance/Consistency	Smooth, gunnable paste
Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Will not freeze
Shelf Life	24 months
Coverage	9.8 oz: 53 linear feet at 3/16" diameter bead 2.8 oz: 15 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	-35°F to 140°F
Tooling Time (Working Time)	5-10 minutes
Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



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Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

Remove excess uncured sealant from surfaces and tools with mineral spirits. Excess cured sealant must be cut or scraped away. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water. Store container in temperatures below 80°F and in a dry place.

SAFETY

See product label or Safety Data Sheet (SDS) for health and safety information. You can request a SDS by visiting our website at dap.com or calling 888-DAP-TIPS.

WARRANTY

WARRANTY: If product fails to perform when used as directed, within one year of date of purchase, call 888-DAP-TIPS, with your sales receipt and product container available, for replacement product or sales price refund. DAP Products Inc. will not be responsible for incidental or consequential damages.

COMPANY IDENTIFICATION

Manufactured for: DAP Products Inc., 2400 Boston Street, Baltimore, Maryland 21224

Usage Information: Call 888-DAP-TIPS or visit dap.com & click on "Ask the Expert"

Order Information: 800-327-3339 or orders@dap.com

Fax Number: 410-558-1068

Also, visit the DAP website at dap.com



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

DAP® 100% SILICONE RUBBER WINDOW, DOOR & SIDING SEALANT is a durable, 100% waterproof and weatherproof sealant for sealing out drafts, water and moisture around windows, doors, siding, gutters, flashing, pipes, vents and more. It stays flexible to withstand expansion and contraction without cracking or losing adhesion. Cured sealant is mold and mildew resistant. Interior/exterior use.



PACKAGING	COLOR	UPC
2.8 fl oz (82.8 mL)	White	7079800752
2.8 fl oz (82.8 mL)	Clear	7079800753
9.8 fl oz (289 mL)	White	7079808646
9.8 fl oz (289 mL)	Clear	7079808641
9.8 fl oz (289 mL)	Almond	7079808649
9.8 fl oz (289 mL)	Aluminum	7079808643
9.8 fl oz (289 mL)	Bronze	7079808647
9.8 fl oz (289 mL)	Black	7079808642

KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
- 100% waterproof & weatherproof seal
- Flexible
- Cured sealant is mold & mildew resistant
- Interior/exterior use



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed 1/2". If joint depth exceeds 1/2", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
- Not recommended for continuous underwater use, filling butt joints, surface defects, tuck-pointing, chimneys, stovepipes or fireplace applications. Not recommended for structural glazing.
- Corrodes some metals. *Not recommended for use on or near brass, copper or copper alloys, zinc, iron, galvanized metals or other surfaces prone to attack by weak acids.
- Not for oily woods or cementitious surfaces. Substrates made of methylmethacrylate, polycarbonate, polypropylene, polyethylene and polytetrafluoroethylene do not allow for best adhesion and compatibility with sealant. Try test area before using.
- **Not paintable.** Paint substrate surface before applying sealant.
- Store below 80°F in dry place for optimal shelf life.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of old caulk, dirt, dust & other foreign material.

Product Application

1. If using squeeze tube, remove cap & cut nozzle at 45° angle to desired bead size. Unscrew nozzle & remove foil seal. Replace nozzle.
2. If using cartridge, cut nozzle at a 45° angle to desired bead size. Puncture inner foil seal. Load into caulk gun.
3. Fill gap or crack with sealant.
4. If necessary, tool or smooth the bead of sealant with a finishing tool before the sealant skins over.
5. Allow sealant to cure for at least 12 hours before exposing to water.



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

6. Do not touch or clean sealant for 24 hours. Sealant reaches full cure in 24 hours.
7. Clean up excess uncured sealant from surface and tools with mineral spirits. Scrape or cut away excess cured sealant. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water.
8. Sealant is not paintable. Paint surfaces prior to applying sealant.
9. Reseal cartridge/tube for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
Appearance/Consistency	Smooth, gunnable paste
Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Will not freeze
Shelf Life	24 months
Coverage	9.8 oz: 53 linear feet at 3/16" diameter bead 2.8 oz: 15 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	-35°F to 140°F
Tooling Time (Working Time)	5-10 minutes
Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

Remove excess uncured sealant from surfaces and tools with mineral spirits. Excess cured sealant must be cut or scraped away. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water. Store container in temperatures below 80°F and in a dry place.

SAFETY

See product label or Safety Data Sheet (SDS) for health and safety information. You can request a SDS by visiting our website at dap.com or calling 888-DAP-TIPS.

WARRANTY

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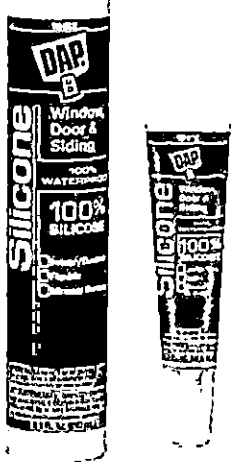
TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

DAP® 100% SILICONE RUBBER WINDOW, DOOR & SIDING SEALANT is a durable, 100% waterproof and weatherproof sealant for sealing out drafts, water and moisture around windows, doors, siding, gutters, flashing, pipes, vents and more. It stays flexible to withstand expansion and contraction without cracking or losing adhesion. Cured sealant is mold and mildew resistant. Interior/exterior use.



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2.8 fl oz (82.8 mL)	White	7079800752
2.8 fl oz (82.8 mL)	Clear	7079800753
9.8 fl oz (289 mL)	White	7079808646
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9.8 fl oz (289 mL)	Almond	7079808649
9.8 fl oz (289 mL)	Aluminum	7079808643
9.8 fl oz (289 mL)	Bronze	7079808647
9.8 fl oz (289 mL)	Black	7079808642

KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
- 100% waterproof & weatherproof seal
- Flexible
- Cured sealant is mold & mildew resistant
- Interior/exterior use



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed 1/2". If joint depth exceeds 1/2", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
- Not recommended for continuous underwater use, filling butt joints, surface defects, tuck-pointing, chimneys, stovepipes or fireplace applications. Not recommended for structural glazing.
- Corrodes some metals. *Not recommended for use on or near brass, copper or copper alloys, zinc, iron, galvanized metals or other surfaces prone to attack by weak acids.
- Not for oily woods or cementitious surfaces. Substrates made of methylmethacrylate, polycarbonate, polypropylene, polyethylene and polytetrafluoroethylene do not allow for best adhesion and compatibility with sealant. Try test area before using.
- **Not paintable.** Paint substrate surface before applying sealant.
- Store below 80°F in dry place for optimal shelf life.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of old caulk, dirt, dust & other foreign material.

Product Application

1. If using squeeze tube, remove cap & cut nozzle at 45° angle to desired bead size. Unscrew nozzle & remove foil seal. Replace nozzle.
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4. If necessary, tool or smooth the bead of sealant with a finishing tool before the sealant skins over.
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TECHNICAL DATA SHEET

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8. Sealant is not paintable. Paint surfaces prior to applying sealant.
9. Reseal cartridge/tube for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
Appearance/Consistency	Smooth, gunnable paste
Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Will not freeze
Shelf Life	24 months
Coverage	9.8 oz: 53 linear feet at 3/16" diameter bead 2.8 oz: 15 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	-35°F to 140°F
Tooling Time (Working Time)	5-10 minutes
Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

Remove excess uncured sealant from surfaces and tools with mineral spirits. Excess cured sealant must be cut or scraped away. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water. Store container in temperatures below 80°F and in a dry place.

SAFETY

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WARRANTY

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Order Information: 800-327-3339 or orders@dap.com

Fax Number: 410-558-1068

Also, visit the DAP website at dap.com



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

DAP® 100% SILICONE RUBBER WINDOW, DOOR & SIDING SEALANT is a durable, 100% waterproof and weatherproof sealant for sealing out drafts, water and moisture around windows, doors, siding, gutters, flashing, pipes, vents and more. It stays flexible to withstand expansion and contraction without cracking or losing adhesion. Cured sealant is mold and mildew resistant. Interior/exterior use.



PACKAGING	COLOR	UPC
2.8 fl oz (82.8 mL)	White	7079800752
2.8 fl oz (82.8 mL)	Clear	7079800753
9.8 fl oz (289 mL)	White	7079808646
9.8 fl oz (289 mL)	Clear	7079808641
9.8 fl oz (289 mL)	Almond	7079808649
9.8 fl oz (289 mL)	Aluminum	7079808643
9.8 fl oz (289 mL)	Bronze	7079808647
9.8 fl oz (289 mL)	Black	7079808642

KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
- 100% waterproof & weatherproof seal
- Flexible
- Cured sealant is mold & mildew resistant
- Interior/exterior use



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed ½". If joint depth exceeds ½", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
- Not recommended for continuous underwater use, filling butt joints, surface defects, tuck-pointing, chimneys, stovepipes or fireplace applications. Not recommended for structural glazing.
- Corrodes some metals. *Not recommended for use on or near brass, copper or copper alloys, zinc, iron, galvanized metals or other surfaces prone to attack by weak acids.
- Not for oily woods or cementitious surfaces. Substrates made of methylmethacrylate, polycarbonate, polypropylene, polyethylene and polytetrafluoroethylene do not allow for best adhesion and compatibility with sealant. Try test area before using.
- **Not paintable.** Paint substrate surface before applying sealant.
- Store below 80°F in dry place for optimal shelf life.

APPLICATION

Surface Preparation

Surface must be clean, dry, structurally sound and free of old caulk, dirt, dust & other foreign material.

Product Application

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2400 Boston Street | Suite 200 | Baltimore, MD | 21224

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8. Sealant is not paintable. Paint surfaces prior to applying sealant.
9. Reseal cartridge/tube for storage and reuse.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
Appearance/Consistency	Smooth, gunnable paste
Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
Flash Point	>212°F
Freeze Thaw Stability (ASTM C1183)	Will not freeze
Shelf Life	24 months
Coverage	9.8 oz: 53 linear feet at 3/16" diameter bead 2.8 oz: 15 linear feet at 3/16" diameter bead
Typical Application Properties	
Application Temperature Range	-35°F to 140°F
Tooling Time (Working Time)	5-10 minutes
Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



TECHNICAL DATA SHEET

2400 Boston Street | Suite 200 | Baltimore, MD | 21224

Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

Remove excess uncured sealant from surfaces and tools with mineral spirits. Excess cured sealant must be cut or scraped away. Do not use mineral spirits to clean hands or skin. Wash hands or skin with soap and water. Store container in temperatures below 80°F and in a dry place.

SAFETY

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2400 Boston Street | Suite 200 | Baltimore, MD | 21224

DAP® 100% Silicone Rubber Window, Door & Siding Sealant

PRODUCT DESCRIPTION

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KEY FEATURES & BENEFITS

- When tested in accordance with ASTM C719 meets the ASTM C920 requirements for Class 25, Use G
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2400 Boston Street | Suite 200 | Baltimore, MD | 21224

SUGGESTED USES

USE FOR CAULKING & SEALING:

- Windows
- Doors
- Siding
- Trim
- Pipes
- Vents
- Ducts
- Gutters
- Flashing

ADHERES TO:

- Wood
- Composite wood
- Aluminum
- Most metals*
- Glass
- Ceramic
- Porcelain
- Vinyl
- Most plastics & rubbers
- Most rubbers

FOR BEST RESULTS

- Apply when surface temperatures are between -35°F to 140°F.
- Joint width should not exceed 1/2". If joint depth exceeds 1/2", use foam backer rod.
- Allow 24 hours for sealant to fully cure. Sealant will not cure in totally confined spaces.
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APPLICATION

Surface Preparation

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Product Application

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TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Typical Uncured Physical Properties	
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Base Polymer	Silicone rubber
Filler	Not applicable
Volatile	Not applicable
Weight % Solids	>97%
Density (lbs per gallon)	8.0
Odor	Vinegar like
Clean Up	Mineral spirits
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Typical Application Properties	
Application Temperature Range	-35°F to 140°F
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Tack Free Time	10-20 minutes
Full Cure	24 hours
Return to Service Time	12 hours
Vertical Sag (ASTM D2202)	0.05"
Typical Cured Performance Properties	
Service Temperature Range	-40°F to 350°F continuous use, up to 400°F intermittent use after full cure
Water Ready Time	12 hours
Paint Ready Time	Not paintable



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2400 Boston Street | Suite 200 | Baltimore, MD | 21224

Mildew Resistance	Cured sealant is mold & mildew resistant
Dynamic Joint Movement (ASTM C719)	+/-25%

CLEAN UP & STORAGE

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Fax Number: 410-558-1068

Also, visit the DAP website at dap.com

Safety Data Sheet
acc. to OSHA HCS

Printing Date 10/12/2021

Revision Number 4

Revision Date 06/28/2021

1 Identification

- **Product identifier**
- **Trade name: 551LSB**
- **Article number: 551LSB**
- **Relevant identified uses of the substance or mixture. Industrial Use Only.**
- **Application of the substance / the mixture**
Sealant
Adhesive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dicor Products, an Airxcel brand
2965 Lavanture Place
Elkhart, IN 46514
Information Phone Number: 574-264-2699
- **Information department: Global Regulatory Department.**
- **Emergency telephone number:**
ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing Date 10/12/2021

Revision Number 4

Revision Date 06/28/2021

Trade name: 55ILSB

(Contd. of page 1)

Hazard statements

- Highly flammable liquid and vapor.
- Causes skin irritation.
- May cause drowsiness or dizziness.
- May be fatal if swallowed and enters airways.

Precautionary statements

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wash thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Immediately call a poison center/doctor.
- Specific treatment (see on this label).
- Do NOT induce vomiting.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a poison center/doctor if you feel unwell.
- Take off contaminated clothing and wash it before reuse.
- If skin irritation occurs: Get medical advice/attention.
- In case of fire: Use for extinction: CO2, powder or water spray.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a well-ventilated place. Keep cool.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

- 6 % of the mixture consists of component(s) of unknown toxicity.

Classification system:

- NFPA ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

- HMIS-ratings (scale 0 - 4)

HEALTH	1
FIRE	3
PHYSICAL HAZARD	0

Health = 1
Fire = 3
Physical Hazard = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture

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Hazardous components:

64742-49-0	Naphtha (petroleum), hydrotreated light, low boil	25-50%
13463-67-7	titanium dioxide	2.5-10%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Avoid contact with skin and eyes.
Open and handle receptacle with care.

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- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.
 - Keep container closed when not in use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
 - Information about storage in one common storage facility: Store away from oxidizing agents.
 - Further information about storage conditions: Keep receptacle tightly sealed.
 - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

13463-67-7 titanium dioxide

PEL Long-term value: 15* mg/m³
*total dust

REL See Pocket Guide App. A

TLV Long-term value: 10 mg/m³

- Additional information: The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Wash hands before breaks and at the end of work.
- **Breathing equipment:**
 - Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- **Eye protection:**
Safety glasses with side shields.



Tightly sealed goggles

- **Body protection:** Protective work clothing

(Contd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Paste
Color:	Black
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point:	Undetermined.
Boiling point:	118-150 °C (244.4-302 °F)
· Flash point:	14-18 °C (57.2-64.4 °F)
· Flammability (solid, gaseous):	Not Applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Flammable limits:	
Lower:	Not Available
Upper:	Not Available
· Vapor pressure:	Not determined.
· Specific gravity:	1.17
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	Not available

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Solids content: 66.4 %

Other information
VOC: = 3.10 lb/gal OR 372 GRAMS/L
Weight per gallon: = 9.23 LBS/gal

10 Stability and reactivity

- **Reactivity** Not reactive as supplied
- **Chemical stability** Stable under recommended storage conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Strong oxidizers, acids and bases.
- **Conditions to avoid** Heat, flames, sparks.
- **Incompatible materials:**
 - Reacts with oxidizing agents.
 - Reacts with acids.
 - Reacts with alkalis (bases)
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Nitrogen oxides (NOx)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - on the skin: Skin irritant.
 - on the eye:
 - May irritate the eye.
 - Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

14807-96-6	Talc (Mg3H2(SiO3)4)	3
13463-67-7	titanium dioxide	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: At present there are no ecotoxicological assessments.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

(Contd. of page 6)

13 Disposal considerations

- Waste treatment methods
- Recommendation: Comply with current regulations.
- Uncleaned packagings:
- Recommendation: Comply with current regulations.

14 Transport information

- UN-Number
- DOT, IMDG, IATA

UN1133

- UN proper shipping name
- DOT
- IMDG
- IATA

Adhesives
ADHESIVES (Naphtha), MARINE POLLUTANT
ADHESIVES

- Transport hazard class(es)
- DOT



- Class
- Label

3 Flammable liquids
3

- IMDG



- Class
- Label

3 Flammable liquids
3

- IATA



- Class

3 Flammable liquids

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· Label	3
· Packing group · DOT, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	Product contains environmentally hazardous substances: Naphtha Yes (DOT) Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids 33 F-E,S-D B
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Remarks:	Based on our review of the physical properties of this adhesive, Dicor Products has determined that this material can be reclassified as UN1133, Adhesives, 3, PGIII, when shipped in containers of less than 30 L (7.9 US GAL). The applicable statutes for this reclassification are 49 CFR § 173.121(b) for US ground shipments, IATA DG code § 3.3.3.1 for international air shipments, and IMDG code § 2.3.2.3 for international sea shipments. Special marking with the symbol (fish and tree).

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture · Sara	
· Section 355 (extremely hazardous substances): None of the ingredients is listed.	
· Section 313 (Specific toxic chemical listings): None of the ingredients is listed.	
· TSCA (Toxic Substances Control Act): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.	
· Hazardous Air Pollutants None of the ingredients is listed.	
· Proposition 65 Please contact Dicor Products for more information regarding Proposition 65 on this product: 574-264-2699.	
· (DSL) Canada Domestic Substance List All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.	
· Cancerogenity categories	
· EPA (Environmental Protection Agency) None of the ingredients is listed.	

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· TLV (Threshold Limit Value)		
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
13463-67-7	titanium dioxide	A4
· MAK (German Maximum Workplace Concentration)		
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	3B
13463-67-7	titanium dioxide	3A
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
13463-67-7	titanium dioxide	

· **National regulations:**

- **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Dicor Products makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Dicor Products or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· **Department issuing SDS:**

Global Regulatory Department.

· **Creation Date:** 06/28/2021

· **Contact:**

Please contact Dicor Products for more information regarding Proposition 65 on this product: 574-264-2699.

· **Date of preparation / last revision** 10/12/2021 / 3

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

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1 Identification

- **Product identifier**
- **Trade name:** 501LST, 502LST
- **Article number:** 501LST, 502LST
- **Relevant identified uses of the substance or mixture. Industrial Use Only.**
- **Application of the substance / the mixture**
Adhesive
Sealant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dicor Products, an Airxcel brand
2965 Lavanture Place
Elkhart, IN 46514
Information Phone Number: 574-264-2699
- **Information department:** Global Regulatory Department.
- **Emergency telephone number:** Chem Trec: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

• **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

- **Hazard statements**

Highly flammable liquid and vapor.

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Causes skin irritation.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center/doctor.
Specific treatment (see on this label).
Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	1
FIRE	3
PHYSICAL HAZARD	0

Health = 1
Fire = 3
Physical Hazard = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture

Hazardous components:

64742-49-0	Naphtha (petroleum), hydrotreated light, low boil	25-50%
13463-67-7	titanium dioxide	2.5-10%

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Trade name: 501LST, 502LST

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4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin becomes irritated seek medical attention.
- **After eye contact:**
Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
• **Most important symptoms and effects, both acute and delayed** No further relevant information available.
• **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Avoid contact with skin and eyes.
Open and handle receptacle with care.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

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- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Keep container closed when not in use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

13463-67-7 titanium dioxide

PEL Long-term value: 15* mg/m³
*total dust

REL See Pocket Guide App. A

TLV Long-term value: 10 mg/m³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**
Nitrile rubber, NBR
Neoprene gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- Eye protection:
Safety glasses with side shields.



Tightly sealed goggles

- Body protection: Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Paste
Color:	Tan
· Odor:	Characteristic
· Odor threshold:	Not Available.
· pH-value:	Not applicable.
· Change in condition	
Melting point:	Undetermined.
Boiling point:	190 °C (374 °F)
· Flash point:	14-18 °C (57.2-64.4 °F)
· Flammability (solid, gaseous):	Not Applicable.
· Ignition temperature:	Not Available
· Decomposition temperature:	Not Available.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Flammable limits:	
Lower:	Not Available
Upper:	Not Available
· Vapor pressure:	Not Available
· Specific gravity at 20 °C (68 °F):	1.18 g/cm ³ (9.8471 lbs/gal)
· Relative density	Not Available.
· Vapor density	Not Available.
· Evaporation rate	Not Available.
· Solubility in / Miscibility with Water:	Not Available.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not Available
Kinematic:	Not Available
· Solvent content:	
Organic solvents:	Not available

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Solids content: 66.9 %

Other information
VOC - 389 GRAMS/L
Lbs/Gal - 9.8

10 Stability and reactivity

- **Reactivity** Not reactive as supplied
- **Chemical stability** Stable under recommended storage conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No further information is available.
- **Conditions to avoid** Heat, flames, sparks.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Hydrocarbons

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
on the skin: Skin irritant.
on the eye:
May irritate the eye.
Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

13463-67-7 titanium dioxide

2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** At present there are no ecotoxicological assessments.

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- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

(Contd. of page 6)

13 Disposal considerations

- Waste treatment methods
- Recommendation: Comply with current regulations.
- Uncleaned packagings:
- Recommendation: Comply with current regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA 	UN1133
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA 	Adhesives ADHESIVES (Naphtha), MARINE POLLUTANT ADHESIVES
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · IMDG 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · IATA 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: 	Product contains environmentally hazardous substances: Naphtha

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Trade name: 501LST, 502LST

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· Marine pollutant:	Yes (DOT) Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-D
· Stowage Category	B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Based on our review of the physical properties of this adhesive, Dicor Products has determined that this material can be reclassified as UN1133, Adhesives, 3, PGIII, when shipped in containers of less than 30 L (7.9 US GAL). The applicable statutes for this reclassification are 49 CFR § 173.121(b) for US ground shipments, IATA DG code § 3.3.3.1 for international air shipments, and IMDG code § 2.3.2.3 for international sea shipments.
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65

Please contact Dicor Products for more information regarding Proposition 65 on this product: 574-264-2699.

· (DSL) Canada Domestic Substance List

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

13463-67-7 titanium dioxide

A4

· MAK (German Maximum Workplace Concentration)

13463-67-7 titanium dioxide

3A

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing Date 10/12/2021

Revision Number 16

Revision Date 07/22/2021

Trade name: 501LST, 502LST

(Contd. of page 8)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7 titanium dioxide

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Dicor Products makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Dicor Products or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· **Department issuing SDS:**

Global Regulatory Department.

· **Creation Date:** 07/22/2021

· **Contact:**

Please contact Dicor Products for more information regarding Proposition 65 on this product:
574-264-2699.

· **Date of preparation / last revision** 10/12/2021 / 15

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1



Safety Data Sheet

24 Hour Emergency Phone Numbers
Medical/Poison Control:
 In U.S.: Call 1-800-222-1222

Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053
1-352-323-3500

NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this SDS are further described in Section 16.

1. Identification

Product Name:	DYNAFLEX 800 Advanced All Weather Sealant Colors	Revision Date:	4/12/2022
Product UPC Number:	070798808003	Supersedes Date:	12/29/2021
Manufacturer:	DAP Global Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)	Product Use/Class:	Caulking Compound
	SDS Coordinator: MSDS@dap.com	SDS No:	1008301
	Emergency Telephone: Transportation: 1-800-535 -5053 1-352-323-3500 Poison Control: 1-800-222-1222	Preparer:	Regulatory and Environmental Affairs

2. Hazards Identification

EMERGENCY OVERVIEW: Under normal use conditions, this product is not expected to cause adverse health effects. High concentration of vapors may cause irritation to eyes and respiratory system.

GHS Classification
 Skin Sens. 1

Symbol(s) of Product



Signal Word
 Warning

Possible Hazards
 32% of the mixture consists of ingredients of unknown acute toxicity

GHS HAZARD STATEMENTS

Skin Sensitizer, category 1

H317

May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of soap and water.

P321

Specific treatment (see ... on this label).

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P501

Dispose of contents/container.

GHS SDS PRECAUTIONARY STATEMENTS

P363

Wash contaminated clothing before reuse.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Limestone	1317-65-3	10-30	No Information	No Information
1,2-Benzenedicarboxylic acid, di-C9-C11-branched	68515-49-1	10-30	GHS07	H332
Trimethoxyvinylsilane	2768-02-7	1-5	GHS07	H317-332
Organosilane Ester	2768-02-7	0.1-1.0	GHS07	H317-332

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Material is not likely to present an inhalation hazard at ambient conditions. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: No special protective measures against fire required.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam, Water Spray or Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Scrape up dried material and place into containers.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Wash thoroughly after handling. Remove contact lenses before using. Do not handle contact lenses until all sealant has been cleaned from fingertips, nails and cuticles. Residual sealant may transfer to contact lenses and cause severe eye irritation.

STORAGE: Avoid excessive heat and freezing. Do not store at temperatures above 120 °F (49 °C). Store away from caustics and oxidizers.

8. Exposure Controls/Personal Protection**Ingredients with Occupational Exposure Limits**

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>

Limestone	N.E.	N.E.	15 mg/m3 TWA total dust, 5 mg/m3 TWA respirable fraction	N.E.
2-Benzenedicarboxylic acid, di-C9-C11- branched	N.E.	N.E.	N.E.	N.E.
Trimethoxyvinylsilane Organosilane Ester	N.E.	N.E.	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required.



SKIN PROTECTION: Wear nitrile or neoprene gloves.



EYE PROTECTION: Goggles or safety glasses with side shields.



OTHER PROTECTIVE EQUIPMENT: Not required under normal use.



HYGIENIC PRACTICES: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	White to Off-White	Physical State:	Paste
Odor:	Slight	Odor Threshold:	Not Established
Density, g/cm3:	1.54 - 1.54	pH:	Not Applicable
Freeze Point, °C:	Not Established	Viscosity (mPa.s):	Not Established
Solubility in Water:	Not Established	Partition Coeff., n-octanol/water:	Not Established
Decomposition Temperature, °C:	Not Established	Explosive Limits, %:	N.E. - N.E.
Boiling Range, °C:	100 - 100	Auto-Ignition Temperature, °C	Not Established
Minimum Flash Point, °C:	100	Vapor Pressure, mmHg:	Not Established
Evaporation Rate:	Slower Than n-Butyl Acetate	Flash Method:	Seta Closed Cup
Vapor Density:	Heavier Than Air	Flammability, NFPA:	Non-Flammable
Combustible Dust:	Does not support combustion		

(See "Other information" Section for abbreviation legend)
(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.
CONDITIONS TO AVOID: Excessive heat and freezing.
INCOMPATIBILITY: Incompatible with strong bases and oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Normal decomposition products, i.e., COx, NOx.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Under normal use conditions, this product is not expected to cause adverse health effects. During application and cure, this product releases methanol. Methanol may affect the brain or nervous system causing lizziness, headache or nausea. Inhalation of vapors in high concentration may cause mild irritation of respiratory system (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Prolonged or repeated contact with skin may cause mild irritation.

EFFECT OF OVEREXPOSURE - EYE CONTACT: Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: Repeated or prolonged exposure may cause mild irritation of eyes and skin. Trimethoxyvinylsilane may cause heart muscle damage, anemia and lung, liver and kidney damage. Constituents of this product include crystalline silica which, if inhalable, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimus exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

PRIMARY ROUTE(S) OF ENTRY: Skin Contact, Inhalation

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
1317-65-3	Limestone	6450 mg/kg Rat	N.I.	N.I.
8515-49-1	1,2-Benzenedicarboxylic acid, di-C9-C11-branched	>60000 mg/kg Rat	16000 mg/kg Rabbit	>12.54 mg/L Rat
2768-02-7	Trimethoxyvinylsilane	7340 mg/kg Rat	3460 mg/kg Rabbit	16.8 mg/L Rat
2768-02-7	Organosilane Ester	11000 mg/kg Rat	3259.2 mg/kg Rabbit	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL INFORMATION: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Scrape up dried material and place into containers.

14. Transport Information

DOT UN/NA Number: N.A.
 DOT Proper Shipping Name: Not Regulated
 DOT Technical Name: N.A.
 DOT Hazard Class: N.A.
 Hazard SubClass: N.A.
 Packing Group: N.A.

15. Regulatory Information

U.S. Federal Regulations:

PERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Respiratory or Skin Sensitization

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

Revision Date: 4/11/2022 Supersedes Date: 12/29/2021

Reason for revision: Substance Hazard Threshold % Changed
 Substance and/or Product Properties Changed in Section(s):
 01 - Product Information
 08 - Exposure Controls/Personal Protection
 Substance Regulatory CAS Number Changed
 Substance Hazardous Flag Changed
 Regulatory Department

Datasheet produced by:

HMIS Ratings:

Health:	Flammability:	Reactivity:	Personal Protection:
1	0	0	X

VOC Less Water Less Exempt Solvent, g/L: 4.3

VOC Material, g/L: 4

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 0.28

VOC Actual, Wt/Wt%: 0.3

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H317 May cause an allergic skin reaction.
 H332 Harmful if inhaled.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS07



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

SDS Number: 1008301

SAP Number:

Revision Date: 4/12/2022

Material Safety Data Sheet
 acc. to ISO/DIS 11014

Printing Date 02/06/2004

Revision Number 1

Reviewed on 02/06/2004

1 Identification of substance

• **Product details** **Dicor Part Number:**
 • **Trade name:** DC12725 ALL WEATHER SEALANT **501LSV-12**
 • **Article number:** 12725
 • **Manufacturer/Supplier:**
 Dicor Corporation
 52878 Airport Parkway
 Elkhart, IN 46514
 • **Emergency Contact:** CHEM-TEL 800-255-3924

2 Composition/Data on components

• **Chemical characterization**
 • **Description:** Mixture of the substances listed below with nonhazardous additions.

• **Dangerous components:**

64742-89-8	Solvent naphtha (petroleum), light aliph. (V/M&P)	33.6%
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• **Additional information:** For the wording of the listed risk phrases refer to section 15.

3 Hazards identification

• **Hazard description:**
 Toxic
 Flammable
 • **Information pertaining to particular dangers for man and environment:**
 May cause cancer.
 Highly flammable.
 Harmful: may cause lung damage if swallowed.
 • **Classification system:**
 The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
 • **NFPA ratings (scale 0 - 4)**



• **HMS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
PHYSICAL HAZARD	0	Physical Hazard = 0

4 First aid measures

• **After inhalation:** Overexposure, remove to fresh air and seek medical attention.
 • **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing Date 02/06/2004

Revision Number 1

Reviewed on 02/06/2004

Trade name: DCJ2725 ALL WEATHER SEALANT

(Contd. of page 2)

- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:** Protective gloves
- **Eye protection:** Safety glasses with side shields.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

• General Information

Form:	Paste
Color:	Ivory
Odor:	Characteristic

• Change in condition	
Melting point:	Undetermined.
Boiling point:	127°C (261°F)

• Flash point:	13°C (55°F)
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• Auto igniting:	Product is not selfigniting.
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• Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible
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• Flammable limits:	
Lower:	1.0 Vol %
Upper:	7.0 Vol %

• Specific gravity:	1.170
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• Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
--	-----------------------------------

• Solvent content:	
Organic solvents:	33.6 %

• Solids content:	66.4 %
--------------------------	--------

• Additional information:	VOC: - 3.04 lbs/gal or 365 gm/l weight pre gallon: - 9.74 lbs
----------------------------------	--

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Keep away from extreme heat, sparks, open flames.
- **Dangerous reactions** Strong oxidizers, acids and bases.
- **Dangerous products of decomposition:**
Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).

11 Toxicological information

- **Acute toxicity:**
- **Primury irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

(Contd. on page 4)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing Date 02/06/2004

Revision Number 1

Reviewed on 02/06/2004

Trade name: DC12725 ALL WEATHER SEALANT

(Contd. of page 1)

- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Seek medical treatment.

5 Fire-fighting measures:

- Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water and water with full jet
- Protective equipment: Protective clothing and respiratory protective device.

6 Accidental release measures:

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- Handling:
• Information for safe handling: Open and handle receptacle with care.
- Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- Storage:
• Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
- Information about storage in one common storage facility: Store as flammable liquid.
- Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
• General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

(Contd. on page 3)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing Date 02/06/2004

Revision Number 1

Reviewed on 02/06/2004

Trade name: DC12725 ALL WEATHER SEALANT

(Contd. of page 3)

- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Carcinogenic.

12 Ecological information

- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- **Product:**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**
- **Hazard class:** 3
- **Identification number:** UN1133
- **Packing group:** II
- **Proper shipping name (technical name):** Adhesives, flammable

15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.
- **Proposition 65**
- **Chemicals known to cause cancer:**
Warning: This product contains a chemical(s) known to the state of California to cause cancer.
64742-89-8 Solvent naphtha (petroleum), light aliph. (VM&P)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing Date 02/06/2004

Revision Number 1

Reviewed on 02/06/2004

Trade name: DC12725 ALL WEATHER SEALANT

(Contd. of page 4)

• **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

• **Carcinogenicity categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

• **NTP (National Toxicology Program)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

• **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

• **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

• **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

• **Hazard-determining components of labelling:**

Solvent naphtha (petroleum), light aliph. (VM&P)

• **Risk phrases:**

Warning: This product contains a chemical(s) known to the state of California to cause cancer and birth defects or other reproductive harm.

May cause cancer.

Highly flammable.

Harmful: may cause lung damage if swallowed

• **National regulations:**

• **Water hazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.**

16 Other information:

Although the information and recommendations set forth in this MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the MSDS.

• **Department issuing MSDS: Environment protection department.**



551LSW

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing Date 07/31/2007

Revision Number 3

Reviewed on 05/28/2004

1 Identification of substance

- **Product details**
- **Trade name:** *Dicor 551LSW Lap Sealant*
- **Article number:** *12345*
- **Manufacturer/Supplier:**
Dicor Corporation
52878 Airport Parkway
Elkhart, IN 46515
- **Information department:** *Environment protection department.*

2 Composition/Data on components

- **Chemical characterization**
- **Description:** *Mixture of the substances listed below with nonhazardous additions.*

· **Dangerous components:**

64742-89-8	Solvent naphtha (petroleum), light aliph. (VM&P)	33.6%
------------	--	-------

- **Additional information:** *For the wording of the listed risk phrases refer to section 15.*

3 Hazards identification

- **Hazard description:**
Flammable
Toxic
- **Information pertaining to particular dangers for man and environment:**
Harmful: may cause lung damage if swallowed.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

- **HMS-ratings (scale 0 - 4)**



Health = 1
Fire = 3
Physical Hazard = 0

4 First aid measures

- **After inhalation:** *Overexposure, remove to fresh air and seek medical attention.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

(Contd. on page 2)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing Date 07/31/2007

Revision Number 3

Reviewed on 05/28/2004

Trade name: *Dicor 551LSW Lap Sealant*

(Contd of page 1)

- *After swallowing: Seek medical treatment.*

5 Fire fighting measures

- *Suitable extinguishing agents:*
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- *Protective equipment:*
Coveralls
Respiratory protective device.

6 Accidental release measures

- *Person-related safety precautions: Ensure adequate ventilation*
- *Measures for environmental protection:*
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- *Measures for cleaning/collecting:*
Dispose of contaminated material as waste in accordance with federal state and local regulations.

7 Handling and storage

- *Handling:*
- *Information for safe handling: Open and handle receptacle with care.*
- *Information about protection against explosions and fires:*
Store in cool dry area away from direct heat (60-90 degrees F).
Keep respiratory protective device available.
- *Storage:*
- *Requirements to be met by storerooms and receptacles: No special requirements.*
- *Information about storage in one common storage facility: Store as flammable liquid.*
- *Further information about storage conditions: Keep receptacle tightly sealed.*

8 Exposure controls and personal protection

- *Additional information about design of technical systems: No further data; see item 7.*
- *Components with limit values that require monitoring at the workplace:*
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- *Additional information: The lists that were valid during the creation were used as basis.*
- *Personal protective equipment (see listings below)*
- *General protective and hygienic measures:*
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- *Breathing equipment:*
In the absence of adequate ventilation, NIOSH-certified respiratory protection for organic vapor should be used as necessary. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- *Protection of hands: Protective gloves*

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USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing Date 07/31/2007

Revision Number 3

Reviewed on 05/28/2004

Trade name: *Dicor 551LSW Lap Sealant*

(Contd. of page 2)

- *Eye protection: Safety glasses with side shields.*
- *Body protection: Protective work clothing*

9 Physical and chemical properties

· General Information

Form:	Paste
Color:	White
Odor:	Characteristic

· Change in condition

Melting point:	Undetermined.
Boiling point:	124°C (255°F)

Flash point:	10°C (50°F)
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Auto igniting:	Product is not selfigniting.
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Danger of explosion:	Product does not present an explosion hazard.
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Specific gravity:	1.190
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· Solubility in / Miscibility with

Water:	Insoluble.
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· Solvent content:

Organic solvents:	33.6 %
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Solids content:	66.4 %
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· Additional information:

"NOTICE: This product does not comply with the requirements of Rule 1168 of California's South Coast Air Quality Management District".
 VOC: = 3.04 LBS/GAL
 Weight per gallon: = 9.90 LBS

10 Stability and reactivity

- *Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.*
- *Dangerous reactions Strong oxidizers, acids and bases.*
- *Dangerous products of decomposition:
OXIDES OF CARBONS AND NITROGEN UNDER BURNING CONDITIONS.*

11 Toxicological information

- *Acute toxicity:*
- *Primary irritant effect:*
- *on the skin: Generally this product does not irritate the skin.*
- *on the eye: Irritating effect.*
- *Sensitization: Sensitizing effect through inhalation is possible with prolonged exposure.*
- *Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful*

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing Date 07/31/2007

Revision Number 3

Reviewed on 05/28/2004

Trade name: **Dicor 551LSW Lap Sealant**

(Contd. of page 3)

12 Ecological information• **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations• **Product:**• **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

• **Uncleaned packagings:**

• **Recommendation:** Disposal must be made according to official regulations.

14 Transport information• **DOT regulations:**• **Hazard class:**

3

• **Identification number:**

UN1133

• **Packing group:**

III

• **Proper shipping name (technical name):** Adhesives, flammable

• **Land transport ADR/RID (cross-border):**• **ADR/RID class:**

3 Flammable liquids

• **UN-Number:**

1133

• **Description of goods:**

Adhesives, flammable

• **Maritime transport IMDG:**• **Remarks:**

Non regulated

15 Regulations• **Sara**• **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

• **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

• **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

• **Proposition 65**• **Chemicals known to cause cancer:**

Substance is listed.

Warning: This product contains a chemical(s) known to the state of California to cause cancer.

64742-89-8 Solvent naphtha (petroleum), light aliph.(VM&P)

• **Chemicals known to cause reproductive toxicity:**

Substance is listed.

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

64742-89-8 Solvent naphtha (petroleum), light aliph.(VM&P)

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USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing Date 07/31/2007

Revision Number 3

Reviewed on 05/28/2004

Trade name: **Dicor 551LSW Lap Sealant**

(Contd. of page 4)

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard-determining components of labelling:**

Solvent naphtha (petroleum), light aliph.(VM&P)

· **Risk phrases:**

Warning: This product contains a chemical(s) known to the state of California to cause cancer and birth defects or other reproductive harm.

Harmful: may cause lung damage if swallowed.

· **National regulations:**

· **Water hazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.**

16 Other information

Although the information and recommendations set forth in this MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, Dicor Corporation makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Dicor Corporation or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the MSDS.

· **Department issuing MSDS: Environment protection department.**

1 Identification

- **Product identifier**
- **Part #: 501LSW**
- **Article number: 12718**
- **Relevant identified uses of the substance or mixture. Sealant**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dicor Corporation
2965 LaVanture Pl
Elkhart IN 46514
Information Phone Number: 574-264-2699
- **Information department: Environment protection department.**
- **Emergency telephone number: Chem Tel: 1-800-255-3924**

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Danger

- **Hazard statements**

Highly flammable liquid and vapor.

May cause drowsiness or dizziness.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

Take precautionary measures against static discharge.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a poison center/doctor if you feel unwell.
In case of fire: Use for extinction: CO2, powder or water spray.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**

HEALTH	1
FIRE	3
PHYSICAL HAZARD	0

Health = 1
Fire = 3
Physical Hazard = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT: Not applicable.**
- **vPvB: Not applicable.**

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description: Mixture of the substances listed below with nonhazardous additions.**

· **Hazardous components:**

64742-89-8	Solvent naphtha (petroleum), light aliph. (VM&P)	25-50%
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· **Additional information:**

All concentrations are in percent by weight unless the ingredient is a gas. Gas concentrations are in percent by volume. Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an airborne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and non-sprayable products is highly unlikely. For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Seek immediate medical advice.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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· Indication of any immediate medical attention and special treatment needed
No further relevant information available.

(Contd. of page 2)

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Advice for firefighters
- Protective equipment:
Coveralls
Respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation
- Environmental precautions:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- Handling:
· Precautions for safe handling Open and handle receptacle with care.
- Information about protection against explosions and fires:
Store in cool dry area away from direct heat (60-90 degrees F).
Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Store as flammable liquid.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment (see listings below)**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· **Protection of hands:**



Protective gloves

· **Eye protection:** Safety glasses with side shields.

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Paste
Color:	White
Odor:	Characteristic

· **Change in condition**

Melting point:	Undetermined.
Boiling point:	127 °C (261 °F)

· **Flash point:** 13 °C (55 °F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Specific gravity:** 1.190

· **Solubility in/ Miscibility with**

Water: Insoluble

· **Solvent content:**

Organic solvents: 32.5 %

Solids content: 67.5 %

· **Other information**

VOC: = 3.04 lb/gal OR 364 GRAMS/L
Weight per gallon: = 9.92

USA

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(Contd. of page 4)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
Keep away from extreme heat, sparks, open flames.
- **Possibility of hazardous reactions** Strong oxidizers, acids and bases.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
OXIDES OF CARBONS AND NITROGEN UNDER BURNING CONDITIONS.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** May irritate the skin.
 - **on the eye:** May irritate the eye.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
· NTP (National Toxicology Program)
None of the ingredients is listed.
· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· <i>Other adverse effects</i> No further relevant information available.	(Contd. of page 5)
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13 Disposal considerations

- *Waste treatment methods*
- *Recommendation:*
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- *Uncleaned packagings:*
- *Recommendation:* Disposal must be made according to official regulations.

14 Transport information

· <i>UN-Number</i> · <i>DOT, ADR, IMDG, IATA</i>	UN1133
· <i>UN proper shipping name</i> · <i>DOT, IMDG, IATA</i> · <i>ADR</i>	ADHESIVES 1133 ADHESIVES
· <i>Transport hazard class(es)</i> · <i>DOT</i>	
	
· <i>Class</i> · <i>Label</i>	3 Flammable liquids 3
· <i>ADR, IMDG, IATA</i>	
	
· <i>Class</i> · <i>Label</i>	3 Flammable liquids 3
· <i>Packing group</i> · <i>DOT, ADR, IMDG, IATA</i>	III
· <i>Environmental hazards:</i>	Not applicable.
· <i>Special precautions for user</i>	Warning: Flammable liquids
· <i>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</i>	Not applicable.
· <i>Transport/Additional information:</i> · <i>DOT</i>	Limited Quantity [DOT ground] - 5 Liters (1.3 gallons) and less (PG III materials) may be classified as LTD. QTY. 49 CFR 173.150 (b) (3)

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· UN "Model Regulation": UN1133, ADHESIVES, 3, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara

· Section 355 (extremely hazardous substances):
None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· Proposition 65
· Chemicals known to cause cancer:
Warning: This product contains a chemical(s) known to the state of California to cause cancer.
All ingredients are listed.

· Chemicals known to cause reproductive toxicity:
Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.
None of the ingredients is listed.

· (DSL) Canada Domestic Substance List
All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

· Cancerogenity categories

· EPA (Environmental Protection Agency)
None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)
None of the ingredients listed.

· MAK (German Maximum Workplace Concentration)
None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

· National regulations:
· Water hazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Dicor Corporation makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Dicor Corporation or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

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· **Department issuing SDS:** Environment protection department.

· **Creation Date:** 07/31/2007

· **Date of preparation / last revision** 05/05/2015 / 4

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

USA

SAFETY DATA SHEET



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Dicor Metal RV Roof Coating
 PRODUCT #: RP-MRC
 GENERAL USE: Elastomeric roof coating
 PRODUCT DESCRIPTION: Pigmented acrylic latex



COMPANY NAME: Dicor Corporation
 DATE PREPARED: April 17, 2014
 SUPERSEDES: March 21, 2012

ADDRESS (NUMBER, STREET, P.O. BOX): 2965 LaVanture Pl
 TELEPHONE NUMBER FOR INFORMATION: 574-264-2699

CITY, STATE & ZIP CODE: Elkhart IN 46514
 COUNTRY: USA
 EMERGENCY TELEPHONE NUMBER: CHEMTEL: 1-800-255-3924

SECTION 2 - HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.
 EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

Irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

HMIS Codes

Health	1
Flammability	0
Reactivity	0
Protective Equipment	E

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS #	% By Weight
TITANIUM DIOXIDE	13463-67-7	6.60
ZINC CARBONATE	1317-65-3	18.90
ETHYLENE GLYCOL	107-21-1	1.51
TEXANOL	25265-77-4	1.20
ACRYLIC POLYMER EMULSION	SUPP. CONF.	29.11
WATER	7732-18-5	42.50

SECTION 4 - FIRST-AID MEASURES

ROUTES OF EXPOSURE: Inhalation of vapor or mist. Eye or skin contact with the product, vapor or mist.
 EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
 SKIN: Wash affected area thoroughly with soap and water.
 INHALATION: If affected. Remove from exposure. Restore breathing. Keep quiet and warm.
 INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water based coating. Will not burn under normal circumstances.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Sealed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be used to cool to prevent pressure build up.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid breathing fumes. Wear proper personal equipment.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers/surface or ground water.

METHODS OF CLEAN UP

Absorb spill with vermiculite, floor absorbent or other absorbent material.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING

Avoid breathing vapors or spray mist.

FIRE PREVENTION

The product itself will not burn.

STORAGE

Keep container closed in a drywell ventilated place.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	CAS #	OSHA PEL	ACGIH TLV	WT %
TITANIUM DIOXIDE	13463-67-7	10 mg / m ³	10 mg / m ³	6.60
CALCIUM CARBONATE	1317-65-3	15 mg / m ³	10 mg / m ³	18.90
ETHYLENE GLYCOL	107-21-1	50 ppm	100 mg / m ³	1.51
TEXANOL	9002-88-4	NE	NE	1.20
ACRYLIC POLYMER EMULSION	SUPP. CONF.	NE	NE	29.11
WATER	7732-18-5	NE	NE	42.50

RESPIRATORY PROTECTION

Whenever workers are in concentrations above the exposure limit they must use appropriate NIOSH/MSHA approved respirators.

SKIN PROTECTION

Wear impervious gloves and apron to prevent skin contact.

EYE/FACE PROTECTION

Use splash-proof safety goggles or face shield.

OTHER PRECAUTIONS

Eyewash station and safety shower should be available within the workplace.

ENGINEERING CONTROLS

Local exhaust preferable. General exhaust is acceptable if maintained below applicable exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid
 ODOR Non-descript
 COLOR White
 PH 8.5 to 9.0
 BOILING POINT 212°F
 FREEZING POINT 32°F
 FLAMMABILITY Non-flammable
 RELATIVE DENSITY 1.23
 SOLUBILITY 100%
 VOC CONTENT 81.1grams/liter

SECTION 10 - STABILITY AND REACTIVITY**MATERIALS TO AVOID**

None

HAZARDOUS REACTIONS

Stable

HAZARDOUS POLYMERIZATION

Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION**ACUTE EFFECTS**

None known

CRYSTALLINE SILICAS

Exposures to respirable Crystalline silica are not expected during normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (silicosis) and/or lung cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration.

SECTION 12 - ECOLOGICAL INFORMATION**ECOLOGICAL EFFECTS**

This product has no known adverse ecological effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Collect and dispose of in accordance with Federal, State/Provincial and Local

Do not contaminate ground water and environment.

Recycle empty buckets or bags.

SECTION 14 - TRANSPORT INFORMATION

Non - regulated, not classified as dangerous.

SECTION 15 - REGULATORY INFORMATION

Observe the general safety regulations when handling.

SARA 313 Not considered hazardous.

EPCRA 302 Not considered hazardous.

EPCRA 304 Not considered hazardous.

RCRA Hazardous Waste: Not Listed

SECTION 16 - OTHER INFORMATION

This product is not intended for use in food or pharmaceuticals.

The information provided in this Safety Data Sheet is, to the best of our knowledge, correct. The data set forth on this sheet is based on information provided by the suppliers of raw materials and chemicals used in the production and manufacture of the aforementioned products. Dicor Corporation makes no warranty with respect to the accuracy of the information provided by the suppliers, and disclaims all liability or reliance thereof. Buyer assumes all risk of use, storage and handling of the product in accordance with federal, state and local laws and regulations.

SAFETY DATA SHEET



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Fiberglass Roof Coaing		
PRODUCT CODE: RP-FRC		
GENERAL USE: Fiberglass roof coating		
PRODUCT DESCRIPTION: Pigmented acrylic emulsion		
COMPANY NAME Dicor Corporation	DATE PREPARED: April 17, 2014	
	SUPERSEDES: April 30, 2012	
ADDRESS (NUMBER, STREET, P.O. BOX) 2965 LaVanture Pl	TELEPHONE NUMBER FOR INFORMATION 574-264-2699	
CITY, STATE & ZIP CODE Elkhart IN 46514	COUNTRY USA	EMERGENCY TELEPHONE NUMBER CHEMTEL: 1-800-255-3924

SECTION 2: HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE INHALATION of vapor or spray mist. EYE or SKIN contact with the product, vapor or spray mist.	<table border="1"> <thead> <tr> <th colspan="2">HMIS Codes</th> </tr> </thead> <tbody> <tr> <td>Health</td> <td>1</td> </tr> <tr> <td>Flammability</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> <tr> <td>Protective Equipment</td> <td>E</td> </tr> </tbody> </table>	HMIS Codes		Health	1	Flammability	0	Reactivity	0	Protective Equipment	E
HMIS Codes											
Health		1									
Flammability		0									
Reactivity	0										
Protective Equipment	E										
EFFECTS OF OVEREXPOSURE Irritation.											
SIGNS AND SYMPTOMS OF OVEREXPOSURE Redness and itching or burning sensation may indicate eye or excessive skin exposure.											
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE None generally recognized.											

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS #	% By Weight
PROPYLENE GLYCOL	57-55-6	1.14
TITANIUM DIOXIDE	13463-67-7	6.40
CALCIUM CARBONATE	1317-65-3	30.90
ACRYLIC POLYMER EMULSION	SUPP. CONF.	36.70
WATER	7732-18-5	14.86

SECTION 4: FIRST AID MEASURES

ROUTES OF EXPOSURE: Inhalation of vapor or mist. Eye or skin contact with the product, vapor or mist.
EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
INHALATION: If affected. Remove from exposure. Restore breathing. Keep quiet and warm.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water based coating. Will not burn under normal circumstances.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Sealed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be used to cool to prevent pressure build up.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid breathing fumes. Wear proper personal equipment.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers/surface or ground water.

METHODS OF CLEAN UP

Absorb spill with vermiculite, floor absorbent or other absorbent material.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING

Avoid breathing vapors or spray mist.

FIRE PREVENTION

The product itself will not burn.

STORAGE

Keep container closed in a drywell ventilated place.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	CAS #	OSHA PEL	ACGIH TLV	WT %
PROPYLENE GLYCOL	57-55-6	NE	NE	1.14
TITANIUM DIOXIDE	13463-67-7	10 mg / m ³	10 mg / m ³	6.40
CALCIUM CARBONATE	1317-65-3	10 mg / m ³	10 mg / m ³	30.90
ACRYLIC POLYMER EMULSION	SUPP. CONF.	NE	NE	36.70
ER	7732-18-5	NE	NE	14.86

RESPIRATORY PROTECTION

Whenever workers are in concentrations above the exposure limit they must use appropriate NIOSH/MSHA approved respirators.

SKIN PROTECTION

Wear impervious gloves and apron to prevent skin contact.

EYE/FACE PROTECTION

Use splash-proof safety goggles or face shield.

OTHER PRECAUTIONS

Eyewash station and safety shower should be available within the workplace.

ENGINEERING CONTROLS

Local exhaust preferable. General exhaust is acceptable if maintained below applicable exposure limits.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid
ODOR Non-descript
COLOR White
PH 8.5 to 9.0
BOILING POINT 212°F
FREEZING POINT 32°F
FLAMMABILITY Non-flammable
RELATIVE DENSITY 1.36
SOLUBILITY 100%
VOC CONTENT 98.50 grams/liter

SECTION 10: STABILITY AND REACTIVITY

MATERIALS TO AVOID
None
HAZARDOUS REACTIONS
Stable
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS
None known
CRYSTALLINE SILICAS
Exposures to respirable Crystalline silica are not expected during normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (silicosis) and/or lung cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL EFFECTS
This product has no known adverse ecological effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Collect and dispose of in accordance with Federal, State/Provincial and Local
Do not contaminate ground water and environment.
Recycle empty buckets or bags.

SECTION 14: TRANSPORT INFORMATION

Non - regulated, not classified as dangerous.

SECTION 15: REGULATORY INFORMATION

Observe the general safety regulations when handling.

SARA 313 Not considered hazardous.
EPCRA 302 Not considered hazardous.
EPCRA 304 Not considered hazardous.
RCRA Hazardous Waste: Not Listed

SECTION 16: OTHER INFORMATION

This product is not intended for use in food or pharmaceuticals.

The information provided in this Safety Data Sheet is, to the best of our knowledge, correct. The data set forth on this sheet is based on information provided by the suppliers of raw materials and chemicals used in the production and manufacture of the aforementioned products. Dicor Corporation makes no warranty with respect to the accuracy of the information provided by the suppliers, and disclaims all liability or reliance thereof. Buyer assumes all risk of use, storage and handling of the product in accordance with federal, state and local laws and regulations.

SAFETY DATA SHEET



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	FIBERGLASS CLEAN AND PREP			
PRODUCT #:	RP-FCP			
GENERAL USE:	FIBERGLASS CLEANER AND PREP			
PRODUCT DESCRIPTION:	DETERGENT SOLUTION			
COMPANY NAME	DICOR CORPORATION	DATE PREPARED:	April 15, 2015	
		SUPERSEDES:	N/A	
ADDRESS (NUMBER, STREET, P.O. BOX)	TELEPHONE NUMBER FOR INFORMATION			
2965 LaVanture PI	574-264-2699			
CITY, STATE & ZIP CODE	COUNTRY	EMERGENCY TELEPHONE NUMBER		
Elkhart IN 46514	USA	CHEMTEL: 1-800-255-3924		

SECTION 2 - HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE INHALATION of vapor or spray mist. EYE or SKIN contact with the product, vapor or spray mist.	<table border="1"> <thead> <tr> <th colspan="2">HMIS Codes</th> </tr> </thead> <tbody> <tr> <td>Health</td> <td>4</td> </tr> <tr> <td>Flammability</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>8</td> </tr> <tr> <td>Protective Equipment</td> <td>D</td> </tr> </tbody> </table>	HMIS Codes		Health	4	Flammability	0	Reactivity	8	Protective Equipment	D
HMIS Codes											
Health		4									
Flammability		0									
Reactivity	8										
Protective Equipment	D										
EFFECTS OF OVEREXPOSURE Irritation.											
SIGNS AND SYMPTOMS OF OVEREXPOSURE Redness and itching or burning sensation may indicate eye or excessive skin exposure.											
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE None generally recognized.											

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS #	% By Weight
2 6 Mole Linear Alcohol Ethoxylate	66455-15-0	2.5
WATER		97.5

SECTION 4 - FIRST AID MEASURES

ROUTES OF EXPOSURE: Inhalation of vapor or mist. Eye or skin contact with the product, vapor or mist. EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention. SKIN: Wash affected area thoroughly with soap and water. INHALATION: If affected. Remove from exposure. Restore breathing. Keep quiet and warm. INGESTION: Do not induce vomiting. Get medical attention immediately.
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SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water based coating. Will not burn under normal circumstances.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Sealed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be used to cool to prevent pressure build up.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid breathing fumes. Wear proper personal equipment.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers/surface or ground water.

METHODS OF CLEAN UP

Absorb spill with vermiculite, floor absorbent or other absorbent material.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING

Avoid breathing vapors or spray mist.

FIRE PREVENTION

The product itself will not burn.

STORAGE

Keep container closed in a drywell ventilated place.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	CAS #	OSHA PEL	ACGIH TLV	WT %
C10-12 6 Mole Linear Alcohol Ethoxylate	66455-15-0	N/E		

RESPIRATORY PROTECTION

Whenever workers are in concentrations above the exposure limit they must use appropriate NIOSH/MSHA approved respirators.

SKIN PROTECTION

Wear impervious gloves and apron to prevent skin contact.

EYE/FACE PROTECTION

Use splash-proof safety goggles or face shield.

OTHER PRECAUTIONS

Eyewash station and safety shower should be available within the workplace.

ENGINEERING CONTROLS

Local exhaust preferable. General exhaust is acceptable if maintained below applicable exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE LIQUID
 ODOR Not determined
 COLOR RED
 PH 13.8
 BOILING POINT 100 °C (212 °F)
 FREEZING POINT 32 F
 FLAMMABILITY NOT APPLICABLE
 RELATIVE DENSITY 1.12 g/cm³ (9.346 lbs/gal)
 SOLUBILITY 100%
 VOC CONTENT

SECTION 10 - STABILITY AND REACTIVITY

MATERIALS TO AVOID
 None
HAZARDOUS REACTIONS
 Stable
HAZARDOUS POLYMERIZATION
 Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE EFFECTS
 None known
CRYSTALLINE SILICAS
 Exposures to respirable Crystalline silica are not expected during normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (silicosis) and/or lung cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL EFFECTS
 This product has no known adverse ecological effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Collect and dispose of in accordance with Federal, State/Provincial and Local
 Do not contaminate ground water and environment.
 Recycle empty buckets or bags.

SECTION 14 - TRANSPORT INFORMATION

Non - regulated, not classified as dangerous.

SECTION 15 - REGULATORY INFORMATION

Observe the general safety regulations when handling.

 SARA 313 Not considered hazardous.
 EPCRA 302 Not considered hazardous.
 EPCRA 304 Not considered hazardous.
 RCRA Hazardous Waste: Not Listed

SECTION 16 - OTHER INFORMATION

This product is not intended for use in food or pharmaceuticals.

The information provided in this Safety Data Sheet is, to the best of our knowledge, correct. The data set forth on this sheet is based on information provided by the suppliers of raw materials and chemicals used in the production and manufacture of the aforementioned products. Dicor Corporation makes no warranty with respect to the accuracy of the information provided by the suppliers, and disclaims all liability or reliance thereof. Buyer assumes all risk of use, storage and handling of the product in accordance with federal, state and local laws and regulations.

SAFETY DATA SHEET



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Metal Roof Rust Inhib Primer
PRODUCT #: RP-MRRIP
GENERAL USE: All Purpose Metal Roof Primer
PRODUCT DESCRIPTION: Pigmented acrylic latex



COMPANY NAME Dicor Corporation	DATE PREPARED: April 17, 2014
ADDRESS (NUMBER, STREET, P.O. BOX) 2965 LaVanture PI	SUPERSEDES: April 30, 2012
CITY, STATE & ZIP CODE Elkhart IN 46514	TELEPHONE NUMBER FOR INFORMATION 574-264-2699
COUNTRY USA	EMERGENCY TELEPHONE NUMBER CHEMTEL: 1-800-255-3924

SECTION 2 - HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
 INHALATION of vapor or spray mist.
 EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE
 Irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
 Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
 None generally recognized.

HMIS Codes	
Health	1
Flammability	0
Reactivity	0
Protective Equipment	E

SECTION 3 - COMPOSITION AND INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS #	% By Weight
IRON OXIDE	7732-18-5	18.77
TITANIUM DIOXIDE	13463-67-3	13.71
MAGNESIUM SILICATE	12174-11-7	9.10
MICA	12001-26-2	2.31
BARIUM METABORATE	13701-59-2	4.60
STYRENE ACRYLIC POLYMER EMULSION	SUPP. CONF.	40.11
ETHYLENE GLYCOL	107-21-1	1.40

SECTION 4 - FIRST AID MEASURES

ROUTES OF EXPOSURE: Inhalation of vapor or mist. Eye or skin contact with the product, vapor or mist.
EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
INHALATION: If affected. Remove from exposure. Restore breathing. Keep quiet and warm.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water based coating. Will not burn under normal circumstances.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Used containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be used to cool to prevent pressure build up.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid breathing fumes. Wear proper personal equipment.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers/surface or ground water.

METHODS OF CLEAN UP

Absorb spill with vermiculite, floor absorbent or other absorbent material.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING

Avoid breathing vapors or spray mist.

FIRE PREVENTION

The product itself will not burn.

STORAGE

Keep container closed in a drywell ventilated place.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	CAS #	OSHA PEL	ACGIH TLV	WT %
WATER	7732-18-5	NE	NE	18.77
TITANIUM DIOXIDE	13463-67-3	10 mg / m ³	10 mg / m ³	13.71
MAGNESIUM SILICATE	12174-11-7	10 mg / m ³	5 mg / m ³	9.10
MICA	12001-26-2	3 mg / m ³	3 mg / m ³	2.31
TITANIUM METABORATE	13701-59-2	NE	.5 mg / m ³	4.60
URENE ACRYLIC POLYMER EMULSION	SUPP. CONF.	NE	NE	40.11
ETHYLENE GLYCOL	107-21-1	NE	100 mg / m ³	1.40

RESPIRATORY PROTECTION

Whenever workers are in concentrations above the exposure limit they must use appropriate NIOSH/MSHA approved respirators.

SKIN PROTECTION

Wear impervious gloves and apron to prevent skin contact.

EYE/FACE PROTECTION

Use splash-proof safety goggles or face shield.

OTHER PRECAUTIONS

Eyewash station and safety shower should be available within the workplace.

ENGINEERING CONTROLS

Local exhaust preferable. General exhaust is acceptable if maintained below applicable exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid
ODOR Non-descript
COLOR White
PH 8.5 to 9.0
BOILING POINT 212°F
FREEZING POINT 32°F
FLAMMABILITY Non-flammable
RELATIVE DENSITY 1.31
SOLUBILITY 100%
VOC CONTENT 81.10 grams/liter

SECTION 10 - STABILITY AND REACTIVITY

MATERIALS TO AVOID
None
HAZARDOUS REACTIONS
Stable
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE EFFECTS
None known
CRYSTALLINE SILICAS
Exposures to respirable Crystalline silica are not expected during normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (silicosis) and/or lung cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL EFFECTS
This product has no known adverse ecological effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Collect and dispose of in accordance with Federal, State/Provincial and Local
Do not contaminate ground water and environment.
Recycle empty buckets or bags.

SECTION 14 - TRANSPORT INFORMATION

Non - regulated, not classified as dangerous.

SECTION 15 - REGULATORY INFORMATION

Observe the general safety regulations when handling.

SARA 313 Not considered hazardous.
EPCRA 302 Not considered hazardous.
EPCRA 304 Not considered hazardous.
RCRA Hazardous Waste: Not Listed

SECTION 16 - OTHER INFORMATION

This product is not intended for use in food or pharmaceuticals.

The information provided in this Safety Data Sheet is, to the best of our knowledge, correct. The data set forth on this sheet is based on information provided by the suppliers of raw materials and chemicals used in the production and manufacture of the aforementioned products. Dicor Corporation makes no warranty with respect to the accuracy of the information provided by the suppliers, and disclaims all liability or reliance thereof. Buyer assumes all risk of use, storage and handling of the product in accordance with federal, state and local laws and regulations.

RP-RC-1GL

RP-RC160C
RP-RC3205

Roof Cleaner

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade name: RUBBER ROOF CLEANER CONC **ITEM #:**

Manufacturer name: Dacor Corporation
Address: 52878 Airport Parkway
 Elkhart, IN 46514
Business phone: 574-264-2699 **Fax:** 574-293-2017
Emergency phone: For spill & medical emergency call 800-255-3924

NFPA Ratings: Health 1 Flammability 0 Reactivity 0

Date last revised: January 2, 2002

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Exposure Limits in Air ACGIH(TLV)	OSHA(PEL)
2-Propanol	67-63-0	400 ppm	400 ppm
Proprietary surfactant blend, builders & water	N/A	N/A	N/A

III. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE

- Inhaled - None expected.
- Contact with skin- May dry the skin and cause irritation.
- Contact with eyes - May cause irritation
- Swallowed - May cause abdominal discomfort.

FIRST AID EMERGENCY PROCEDURES:

- Inhaled: Move to fresh air.
- Skin contact: Wash with soap and water
- Eye Contact: Flush with water for at least 15 minutes. Get medical attention
- Swallowed: Drink large quantities of water. Get medical attention

RECOMMENDATIONS TO PHYSICIAN: There is no special antidote. Treatment of over exposure should be directed at the control of symptoms and clinical condition.

SUSPECTED CANCER AGENT? NO, this product's ingredients are not listed in federal OSHA, NTP, IARC or ILO/OSHA lists.

IV. PHYSICAL PROPERTIES

Vapor density (air=1): N/A	Evaporation rate, (butyl acetate=1): N/A
Specific gravity at 77°F: 1.024	Appearance and odor: Liquid with characteristic fragrance
Solubility in water: Complete	Vapor pressure, mm Hg at 77°F: N/A
Melting range, F: 32	pH: 8.9
Boiling point at 760 mm Hg, °F: 212°	

V. FIRE AND EXPLOSION DATA

Flash point, °F (give method): Non-flammable autoignition temperature, °F: N/A
 Flammable limits in air, volume %: N/A Lower Upper
 Fire extinguishing materials: water spray carbon dioxide foam dry chemical
 Special fire fighting procedures: Use media proper to the primary cause of fire.
 Unusual fire and explosion hazards: N/A

VI. REACTIVITY DATA

Stability: Stable Unstable
 Conditions to avoid: Keep the product away from heat Incompatibility (materials to avoid): N/A
 Hazardous decomposition products (including combustion products): Oxides of carbon
 Hazardous polymerization: May Occur Will Not Occur

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill response procedures: Collect for disposal.
 Preparing waste for disposal (neutralize type, neutralization, etc): N/A
 *NOTE: Dispose of all wastes in accordance with federal, state and local regulations

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: None	Respiratory protection: None
Eye protection: Wear safety goggles.	Gloves: Latex or plastic.
Other clothing and equipment: None	Storage requirements: Store between 40-110 °F.
Work practices, hygienic practices: Use good hygienic practice	

We believe that the information contained in this M.S.D.S. is current. Since the use of this information and the conditions of the use of the product are not within the control of Blue Magic Products, Inc., it is the users obligation to determine the conditions of safe use of this product. The information herein is given in good faith, but no warranty, expressed or implied is made

N/A = Not Available or Not Applicable N/E: Not established

RP-RC-1GL

RP-RC160C

RP-RC3205

Roof Cleaner

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade name:

RUBBER ROOF CLEANER CONC

ITEM #:

Manufacturer name:

Dicor Corporation

Address:

52878 Airport Parkway

Business phone:

Elkhart, IN 46514

Emergency phone:

574-264-2699

Fax: 574-293-2017

For spill & medical emergency call

800-255-3924

NIHA Ratings:

Health 1

Flammability 0

Reactivity 0

Date last revised:

January 2, 2002

II. HAZARDOUS INGREDIENTS

Chemical Names

CAS Numbers

Exposure Limits in Air

2-Propanol

67-63-0

ACGIH(TLV)

OSHA(PEL)

Proprietary surfactant blend, builders & water

N/A

400 ppm

400 ppm

N/A

N/A

III. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE

Inhaled - None expected.

Contact with skin- May dry the skin and cause irritation.

Contact with eyes - May cause irritation

Swallowed - May cause abdominal discomfort.

FIRST AID EMERGENCY PROCEDURES:

Inhaled: Move to fresh air.

Skin contact: Wash with soap and water

Eye Contact: Flush with water for at least 15 minutes. Get medical attention

Swallowed: Drink large quantities of water. Get medical attention

RECOMMENDATIONS TO PHYSICIAN: There is no special antidote. Treatment of over exposure should be directed at the control of symptoms and clinical condition.

SUSPECTED CANCER AGENT? NO, this product's ingredients are not listed in federal OSHA, NTP, IARC or CAL/OSHA lists.

IV. PHYSICAL PROPERTIES

Vapor density (air=1): N/A	Evaporation rate, (butyl acetate=1): N/A
Specific gravity at 77°F: 1.024	Appearance and odor: Liquid with characteristic fragrance
Solubility in water: Complete	Vapor pressure, mm Hg at 77°F: N/A
Melting range, F: 32	pH: 8.9
Boiling point at 760 mm Hg, °F: 212°	

V. FIRE AND EXPLOSION DATA

Flash point, °F (give method): Non-flammable autoignition temperature, °F: N/A

Flammable limits in air, volume %: N/A Lower Upper

Fire extinguishing materials: water spray carbon dioxide foam dry chemical

Special fire fighting procedures: Use media proper to the primary cause of fire.

Unusual fire and explosion hazards: N/A

VI. REACTIVITY DATA

Stability: Stable Unstable

Conditions to avoid: Keep the product away from heat Incompatibility (materials to avoid): N/A

Hazardous decomposition products (including combustion products): Oxides of carbon

Hazardous polymerization: May Occur Will Not Occur

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill response procedures: Collect for disposal.

Preparing waste for disposal (neutralization type, neutralization, etc.): N/A

*NOTE: Dispose of all wastes in accordance with federal, state and local regulations

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: None	Respiratory protection: None
Eye protection: Wear safety goggles.	Gloves: Latex or plastic.
Other clothing and equipment: None	Storage requirements: Store between 40-110 °F.
Work practices, hygienic practices: Use good hygienic practice	

We believe that the information contained in this M.S.D.S. is current. Since the use of this information and the conditions of the use of the product are not within the control of Blue Magic Products, Inc., it is the users obligation to determine the conditions of safe use of this product. The information herein is given in good faith, but no warranty, expressed or implied is made

N/A = Not Available or Not Applicable

NE: Not established

RP-RG-1GL

RP-RG3205
Roof Gard

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade name: RUBBER ROOF PROTECTANT Item No.:

Manufacturer name: Dacor Corporation

Address: 52878 Airport Parkway Elkhart, IN 46514

Business phone: 574-264-2699 Fax no.: 800-255-3924

Emergency phone: For spill & medical emergency call

NFPA Ratings: Health 1 Flammability 0 Reactivity 0

Date last revised: June 1, 2001

Proper Shipping Name: Air- Non-regulated Track- Non-regulated

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Exposure Limits in Air ACGIH(TLV)	OSHA(PEL)
Amino Functional polymer and nonionic surfactant blend (proprietary)		N/A	N/A

III. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE

Inhaled - None currently known

Contact with skin - Single relatively short exposure causes no known adverse effect. Several prolonged exposures (24-48 hours) may irritate

Contact with eyes - Direct contact irritates slightly to moderately with redness and swelling

Swallowed - Small amounts transferred to mouth during use, should not injure. Swallowing large amounts may cause digestive discomfort.

FIRST AID EMERGENCY PROCEDURES:

Inhaled: No first aid should be needed.

Skin contact: Wipe off and flush skin with plenty of water. Call a physician

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes and wash contaminated clothing before reuse

Swallowed: Drink a large quantity of milk, gelatin, egg white or if these are not available, drink a large quantity of water. Call a physician immediately.

RECOMMENDATIONS TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed

SUSPECTED CANCER AGENT? NO, this products ingredients are not listed in federal OSHA, NTP, IARC or CAL/OSHA lists.

IV. PHYSICAL PROPERTIES

Vapor density (air=1): 1
 Specific gravity at 68°F: .998
 Solubility in water: Disperses completely
 Melting range, °F: 29°
 Boiling point at 760-mm Hg, °F: 215°

% VOC: <0.5%
 Appearance and odor: Milky liquid with aroma
 Vapor pressure, mm Hg at 68°F: 1
 pH: 7.80

V. FIRE AND EXPLOSION DATA

Flash point, of (give method): Non-flammable Autoignition temperature, of: N/A
 Flammable limits in air, volume %: N/A Lower N/A Upper
 Fire extinguishing materials: X water spray X carbon dioxide X foam X dry chemical
 Special fire fighting procedures: N/A Unusual fire and explosion hazards: N/A

VI. REACTIVITY DATA

Stability: X Stable Unstable Conditions to avoid: N/A
 Incompatibility (materials to avoid): Strong oxidizing agents.
 Hazardous decomposition products (including combustion products): N/A
 Hazardous polymerization: May Occur X Will Not Occur

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill response procedures: Hose down surfaces contacted by this material.
 Preparing waste for disposal* (container types, neutralization, etc.): Pour down drain in small increments with large volumes of water between.

*NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: N/A Respiratory protection: Not required.
 Eye protection: Safety goggles Gloves: Non-permeable: Neoprene, BUNA-N.
 Other clothing and equipment: Do not wear contaminated clothing.
 Work practices, hygienic practices: N/A
 Other handling and storage requirements: Keep bottle closed when not in use.
 Keep out of reach of children. Avoid contamination of food stuff. Avoid breathing vapors.
 Protective measures during maintenance of contaminated equipment: N/A

We believe that the information contained in this M.S.D.S. is current. Since the use of this information and the conditions of the use of the product are within the control of Blue Magic Products, Inc. it is the users obligation to determine the conditions of safe use of this product. The information herein is given in good faith, but no warranty, expressed or implied is made

N/A = Not Available or Not Applicable

N/E = Not established

RP-RG-1GL

RP-RG3205
Roof Gard

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade name: RUBBER ROOF PROTECTANT Item No.:
Manufacturer name: Dicox Corporation
Address: 52878 Airport Parkway Elkhart, IN 46514
Business phone: 574-264-2699 Fax no.: 800-255-3924
Emergency phone: For spill & medical emergency call
NFPA Ratings: Health 1 Flammability 0 Reactivity 0
Date last revised: June 1, 2001

Proper Shipping Name: Air- Non-regulated. Truck- Non-regulated

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Exposure Limits in Air ACGIH(TLV)	OSHA(PEL)
Amino Functional polymer and nonionic surfactant blend (proprietary)		N/A	N/A

III. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE

Inhaled - None currently known

Contact with skin - Single relatively short exposure causes no known adverse effect. Several prolonged exposures (24-48 hours) may irritate

Contact with eyes - Direct contact irritates slightly to moderately with redness and swelling

Swallowed - Small amounts transferred to mouth during use, should not injure. Swallowing large amounts may cause digestive discomfort.

FIRST AID EMERGENCY PROCEDURES:

Inhaled: No first aid should be needed.

Skin contact: Wipe off and flush skin with plenty of water. Call a physician

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes and wash contaminated clothing before reuse.

Swallowed: Drink a large quantity of milk, gelatin, egg white or if these are not available, drink a large quantity of water. Call a physician immediately.

RECOMMENDATIONS TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed

SUSPECTED CANCER AGENT? NO, this products ingredients are not listed in federal OSHA, NTP, IARC or CAL/OSHA lists.

IV. PHYSICAL PROPERTIES

Vapor density (air=1): 1
 Specific gravity at 68°F: .998
 Solubility in water: Disperses completely
 Melting range, °F: 29°
 Boiling point at 760 mm Hg, °F: 215°

% VOC: <0.5%
 Appearance and odor: Milky liquid with aroma
 Vapor pressure, mm Hg at 68°F: 1
 pH: 7.80

V. FIRE AND EXPLOSION DATA

Flash point, of (give method): Non-flammable Autoignition temperature, of: N/A
 Flammable limits in air, volume %: N/A Lower N/A Upper
 Fire extinguishing materials: X water spray X carbon dioxide X foam X dry chemical
 Special fire fighting procedures: N/A Unusual fire and explosion hazards: N/A

VI. REACTIVITY DATA

Stability: X Stable Unstable Conditions to avoid: N/A
 Incompatibility (materials to avoid): Strong oxidizing agents.
 Hazardous decomposition products (including combustion products): N/A
 Hazardous polymerization: May Occur X Will Not Occur

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill response procedures: Hose down surfaces contacted by this material.
 Preparing waste for disposal* (container types, neutralization, etc.): Pour down drain in small increments with large volumes of water between.

*NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: N/A Respiratory protection: Not required.
 Eye protection: Safety goggles Gloves: Non-permeable: Neoprene, BUNA-N.
 Other clothing and equipment: Do not wear contaminated clothing.
 Work practices, hygienic practices: N/A
 Other handling and storage requirements: Keep bottle closed when not in use.
 Keep out of reach of children. Avoid contamination of food stuff. Avoid breathing vapors.
 Protective measures during maintenance of contaminated equipment: N/A

We believe that the information contained in this M.S.D.S. is current. Since the use of this information and the conditions of the use of the product are within the control of Blue Magic Products, Inc. it is the users obligation to determine the conditions of safe use of this product. The information herein is given in good faith, but no warranty, expressed or implied is made

MATERIAL SAFETY DATA SHEET

1 of 4

TST Orange Power

PRODUCT NAME: **TST Orange Power**

NFPA CODES: Health 1
Flammability 0
Reactivity 0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

PRODUCT CODE: 41197

=====**SECTION I - MANUFACTURER IDENTIFICATION**=====

MANUFACTURER'S NAME: **Camco Manufacturing, Inc.**
ADDRESS : **121 Landmark Drive
Greensboro, NC 27409**

EMERGENCY PHONE : **1-800-535-5053** DATE REVISED : 10/04/2004
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : **CAMCO MANUFACTURING INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004**

=====**SECTION II - COMPOSITION / INFORMATION ON MATERIALS**=====

REPORTABLE COMPONENTS	CAS NUMBER	WEIGHT PERCENT
Calcium Nitrate Tetrahydrate	13477-34-4	<72%

=====**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**=====

BOILING RANGE: Not Determined
VAPOR DENSITY: Not Determined
SOLUBILITY IN WATER: Completely Soluble
APPEARANCE AND ODOR: Orange; Citrus Fragrance
SPECIFIC GRAVITY (H2O=1): 1.452 @ 68° F
EVAPORATION RATE: N/A

MATERIAL SAFETY DATA SHEET

2 of 4

TST Orange Power

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: N/A

METHOD USED: N/A

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A **UPPER:** N/A

EXTINGUISHING MEDIA: Non-flammable. Use extinguisher appropriate for surrounding fire. Water, Fog or Dry Chemical.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Flush with water if involved in a fire or extreme heat.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Extreme heat could cause emission or nitrogenous fumes.

===== SECTION V - REACTIVITY DATA =====

STABILITY: Stable

CONDITIONS TO AVOID: Excessive temperatures and strong oxidizers

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Nitrogen Oxide

HAZARDOUS POLYMERIZATION: Do not occur

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Unlikely

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

EYE CONTACT: May irritate the eyes if contact with material occurs.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN CONTACT: Frequent or prolonged contact may cause skin irritation.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

INGESTION: Swallowing large amounts may cause nausea and vomiting and may be harmful.

HEALTH HAZARDS (ACUTE AND CHRONIC): If swallowed, large amounts could be fatal.

CARCINOGENICITY: No

MATERIAL SAFETY DATA SHEET

3 of 4

TST Orange Power

NTP CARCINOGEN: No

IARC MONOGRAPHS: No

OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
None known

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If breathing is difficult, get medical attention.

EYE CONTACT: Flush with large quantities of water for 15 minutes and seek medical attention.

SKIN: Remove contaminated clothing and launder before reuse. Wash skin with soap and water. Get medical attention for persistent irritation or any other symptom.

INGESTION: Induce vomiting. Dilute by giving water. Keep warm and quiet. Call physician. Do not induce vomiting or give water to anyone who is having trouble breathing, is unconscious, or having convulsions.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb liquid with inert solids and shovel into containers suitable for transport and disposal. If necessary, dike spill.

WASTE DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Store in a cool, dry, well ventilated area.

OTHER PRECAUTIONS
None

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

In well-ventilated areas, respiratory protection is not normally required.

MATERIAL SAFETY DATA SHEET

4 of 4

TST Orange Power

VENTILATION: General ventilation is sufficient.

PROTECTIVE GLOVES: Wear appropriate impermeable gloves.

EYE PROTECTION:

Use chemical safety glasses or goggles for eye protection.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: It is the responsibility of the user to determine the proper protective equipment that is needed based on how the product will be used.

WORK/HYGIENIC PRACTICES:

Wash thoroughly after handling.

===== SECTION IX - DISCLAIMER =====

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of his own use, handling and disposal of this product.



SAFETY DATA SHEET

SDS#: 879809_E_initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Product Name: RV STABILIZER JACK LUBE

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Lubricant / Conditioner

Product Code: 41100 (15 mass oz., 425 grams) aerosol spray

In case of Emergency: 1-800-535-5053

2 - HAZARDS IDENTIFICATION:

Classification: Aspiration Hazard Category 1
Flammable Aerosol Category 1
Gases Under Pressure – Liquefied Gases

Hazard Pictogram(s):



Signal Word: **DANGER**

Hazard Phrases: H222 Extremely Flammable Aerosol
H229 Pressurized Container: may burst if heated.
H304 May be fatal if swallowed and enters airways

Precaution Phrases: P210 Keep away from heat / sparks / open flames / hot surfaces – No Smoking.
P211 **DO NOT** spray on an open flame or other ignition source
P251 Pressurized container – Do not pierce or burn, even after use.

Response Phrases: P321 Specific treatment see Section 4, First Aid on this SDS.
P331 Do Not Induce Vomiting
P301+P310 **IF SWALLOWED:** immediately call a poison center or a doctor.

Storage and Disposal Phrases: P405 Store Locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F
P501 Dispose of contents / container according to local, state regional, national, territorial, provincial, federal and international regulations.



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

3 - COMPOSITION, INFORMATION ON INGREDIENTS:

<u>NAME</u>	<u>CAS NUMBER</u>	<u>% WEIGHT</u>	<u>CLASSIFICATION</u>
Distillates (petroleum), hydrotreated light	64742-47-8	65 – 75 *	H227, 4, Combustible Liquid H304, 1, Aspiration Toxicity
Petroleum gases, liquefied sweetened (Propane/n-Butane)	68476-86-8	10 – 30 *	H220, 1 Flammable Gas H280, Liquefied Gas H304, 1, Aspiration Toxicity
Distillates (petroleum) hydrotreated middle	64742-46-7	3 – 7 *	H304, 1, Aspiration Toxicity
2-butoxyethanol	111-76-2	1 – 5 *	H227, 4, Combustible Liquid H315, 2, Causes Skin Irritation H319, 2A, Causes Serious Eye Irritation H335, 3, May Cause Respiratory Irritation. H302+H312+H332, 4, Acute Toxicity: Oral, Dermal, Inhalation

* Percent composition will vary by Product, from batch to batch or exact details are proprietary information.

4 – FIRST AID MEASURES:

- General:** Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Never attempt to give anything orally (by mouth) to a person that is unconscious. If you or another person feels unwell, seek medical advice. Show label to the medical personnel if possible.
- Eye Contact:** Do not rub eyes. Rinse eyes carefully for at least 15 minutes with low-pressure water. If contact lenses are present, remove if easy to do so. Continue rinsing. Seek medical attention if irritation develops and persists.
- Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists.
- Inhalation:** Move from exposure area to fresh air. Monitor breathing. Seek medical attention if feeling unwell or problems breathing.
- Ingestion:** Rinse mouth with water. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician to get medical advice if one feels unwell.

MOST IMPORTANT SYMPTOMS / EFFECTS. Acute and Delayed:

- General:** May cause irritation if in eyes.
- Eye Contact:** May cause irritation if in eyes.
- Skin Contact:** May cause skin irritation.
- Inhalation:** May cause respiratory irritation resulting in coughing, choking and / or wheezing.
- Ingestion:** Irritation of the gastrointestinal tract may develop with increased thirst, nausea, and / or diarrhea.

5 – FIRE - FIGHTING MEASURES

EXTINGUISHING MEDIA:

Suitable: Alcohol foam, carbon dioxide, or dry chemical.



SAFETY DATA SHEET

SDS#: 879809_E Initial

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Revision Number 0

Unsuitable: **DO NOT** use water as this may spread the fire.

Fire Hazard: Flammable

Explosion Hazard: Product is not explosive.

Special Hazards: Combustion may produce irritating and /or toxic gases / fumes like oxides of carbon and nitrogen.

6 – ACCIDENTAL RELEASE MEASURES:

Personal Precautions: Prevent eye, contact. Avoid breathing vapors. Spilled material may present a slip hazard on some surfaces.

Environmental Precautions: Prevent large spills from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12 for Ecological Information/Data.

Containment and Clean up: Stop spill or leak at source if safe to do so. Sweep / Vacuum up spillage and collect in suitable container. Avoid generation of dust / ventilate area of spillage.

7 – HANDLING AND STORAGE:

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing mist. Wash hands thoroughly after handling. Do not eat or drink after handling without washing hands.

Conditions for safe storage: Store in a cool, dry area. Keep containers dry and tightly closed to avoid moisture absorption or contamination.

Incompatible Materials: Keep away from open flames and high temperatures.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION:

Regulatory Exposure Limits (REL's): Listed below for the product components that have regulatory occupational exposure limits (OEL's) established. If no limits are displayed then no values were found or are applicable.

Component	CAS Number:	OSHA PEL	ACGIH TLV	NIOSH REL
Distillates (petroleum), hydrotreated light	64742-47-8	NDF	10 ppm	NDF
Petroleum gases, liquefied sweetened (Propane/n-Butane)	68476-86-8	5 mg/m ³	5 mg/m ³	
Distillates (petroleum) hydrotreated middle	64742-46-7	5 mg/m ³	5 mg/m ³	NDF
2-butoxyethanol	111-76-2	TWA: 240 mg/m ³ TWA: 50 ppm	TWA: 20 ppm	TWA: 24 mg/m ³ TWA: 5 ppm

Engineering Controls: Ensure adequate ventilation / use in a well-ventilated area.

Personal Protection:

Eye Protection: Safety goggles, face shield, or safety glasses

Skin Protection: Chemical resistant gloves.



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

Respiratory Protection: Where OEL's maybe reached or exceeded consult with an industrial hygienist for proper/approved respiration protection.

General Hygiene: Do **NOT** eat, drink, smoke or use cosmetics when handling this material. Avoid contact with eye, skin and clothing. Avoid breathing the mist.

9 - PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Light Yellow Aerosol	Boiling Point (°C/°F):	Not Determined
Physical State:	Liquefied gas liquid mixture	Flash Point (°C/°F):	Not Determined
Odor:	Solvent Like	Method:	
Odor Threshold (ppm):	Not Determined	Flammable Limits in Air by Volume (%):	
pH ():	N/Ap	Lower:	Not Determined
Melting Point (°C/°F):	Not Determined	Upper:	Not Determined
Freeze Point (°C/°F):	Not Determined	Vapor Pressure (mm Hg @ 25°C): .	Not Determined
Viscosity dynamic (cps @ ___°C): ..	Not Determined	Vapor Density:	Not Determined
Viscosity kinematic (cps @ ___°C):	Not Determined	Solubility, water:	0% Soluble
Specific Gravity (@ 25°C):	0.80 – 0.82 g/ml	Other:	Not Determined
Bulk Density (g/cm³):	Not Applicable	Auto-ignition Temperature(°C/°F) :	Not Determined
Evaporation Rate:	< 0.8 (slow)	Decomposition Temperature (°C/°F):	Not Determined
Explosive Limits in Air by Volume (%):		Volatile Organic Compounds (%):	23
Lower:	Not Determined	Partition Coefficient (n-octanol/water, Kow):	Not Determined
Upper:	Not Determined		

10 - STABILITY AND REACTIVITY:

Reactivity:
None Known.

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Flames, sparks, hot surfaces, heat, ignition sources.

Incompatible Materials:
Oxidizing agents.

Hazardous Decomposition Products:
Decomposition may yield carbon monoxide and carbon dioxide.

Hazardous Polymerization:
Not expected to occur.

11 - TOXICOLOGICAL INFORMATION:

PRODUCT	Oral LD50	Dermal LD50	Inhalation LC50
Toxicological Information on the product has not been determined.			
If data was found / known for the individual components, it is presented below			



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: **RV Stabilizer Jack Lube**

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

Component	CAS Number:	Oral LD50	Dermal LD50	Inhalation LC50
Distillates (petroleum), hydrotreated light	64742-47-8	Rat: > 5,000 mg/kg	Rabbit: > 5,000 mg/kg	Rat: > 5000 mg/m ³ (8H)
Petroleum gases, liquefied sweetened (Propane/n-Butane)	68476-86-8	No Data Found	No Data Found	4h: 658 mg/L
Distillates (petroleum) hydrotreated middle	64742-46-7	Rat: > 5,000 mg/kg	Rabbit: > 2,000 mg/kg	Rat: 5266 mg/m ³ (4H)
2-butoxyethanol	111-76-2	Rat: 1,300 mg/kg	Rat: > 2,000 mg/kg	Rat: >3.9 mg/L (4H) Guinea Pig 1h: >3.4 mg/L

Component	CAS Number:
Distillates (petroleum), hydrotreated light	64742-47-8
<u>Skin Corrosion/Irritation:</u>	Drying leading to discomfort and dermatitis, based on similar material as per OECD 404
<u>Serious Eye Damage/Irritation:</u>	May cause mild short term discomfort to eyes, based on similar material as per OECD 405
<u>Respiratory Sensitization:</u>	Not expected to be a respiratory sensitizer.
<u>Skin Sensitization:</u>	Not expected to be a respiratory sensitizer, as per, or similar too, OECD 406
<u>Carcinogenicity:</u>	Not expected to be a carcinogen based on similar material as per, or similar too, OECD 453.
<u>Toxicity to Reproduction:</u>	Not expected to be a reproductive toxicant based on similar material as per, or similar too, OECD 413, 414, 415.
<u>Developmental Toxicity:</u>	No Information Found.
<u>Germ Cell Mutagenicity:</u>	Not expected to have mutagenic properties based on similar material as per, or similar too, OECD 471, 473, 474, 476, 478, 479.
<u>STOT – Single exposure</u>	Not expected to cause damage from a single exposure.
<u>STOT – Repeated exposure</u>	Not expected to cause organ damage from prolonged or repeated exposure. Based on similar materials per, or similar too, OECD 408, 413.
<u>Aspiration Toxicity:</u>	May be fatal if swallowed and enters airways. Based on physiochemical properties of the material.
Petroleum gases, liquefied sweetened (Propane/n-Butane)	68476-86-8
<u>Skin Corrosion/Irritation:</u>	Not Classified
<u>Serious Eye Damage/Irritation:</u>	Not Classified
<u>Respiratory Sensitization:</u>	Not Classified
<u>Skin Sensitization:</u>	Not Classified
<u>Carcinogenicity:</u>	Not Classified



SAFETY DATA SHEET

SDS#: 879809_E Initial

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Initial Date Prepared: 04/21/2022

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<u>Toxicity to Reproduction:</u>	Not Classified	
<u>Developmental Toxicity:</u>	Not Classified	
<u>Germ Cell Mutagenicity:</u>	Not Classified	
<u>STOT – Single exposure</u>	Not Classified	
<u>STOT – Repeated exposure</u>	Not Classified	
<u>Aspiration Toxicity:</u>	Not Classified	
Distillates (petroleum) hydrotreated middle	64742-46-7	
<u>Skin Corrosion/Irritation:</u>	Drying leading to discomfort and dermatitis, based on similar material as per OECD 404	
<u>Serious Eye Damage/Irritation:</u>	May cause mild short term discomfort to eyes, based on similar material as per OECD 405	
<u>Respiratory Sensitization:</u>	Not expected to be a respiratory sensitizer.	
<u>Skin Sensitization:</u>	Not expected to be a skin sensitizer, as per, or similar too, OECD 406	
<u>Carcinogenicity:</u>	Not expected to cause cancer.	
<u>Toxicity to Reproduction:</u>	Not expected to be a reproductive toxicant based on similar material as per, or similar too, OECD 414, 421, 422.	
<u>Developmental Toxicity:</u>	No Information Found.	
<u>Germ Cell Mutagenicity:</u>	Not expected to have mutagenic properties based on similar material as per, or similar too, OECD 471, 473, 474, 475, 483.	
<u>STOT – Single exposure</u>	Not expected to cause damage from a single exposure.	
<u>STOT – Repeated exposure</u>	Not expected to cause organ damage from prolonged or repeated exposure. Based on similar materials per, or similar too, OECD 408, 411, 413.	
<u>Aspiration Toxicity:</u>	May be fatal if swallowed and enters airways. Based on physiochemical properties of the material.	
2-butoxyethanol	111-76-2	
<u>Skin Corrosion/Irritation:</u>	Rabbit, 24 h: moderate, causes Skin Irritation	
<u>Serious Eye Damage/Irritation:</u>	Rabbit, 24 h: moderate, causes serious eye irritation.	
<u>Respiratory Sensitization:</u>	Not classified based on available information	
<u>Skin Sensitization:</u>	Guinea Pig: Not a skin sensitizer	
<u>Carcinogenicity:</u>	Not classified based on available information	
<u>Toxicity to Reproduction:</u>	Not classified based on available information OECD Test 416: Mouse, M&F, 2 Generation NOAEL:720 mg/kg, Ingestion	
<u>Developmental Toxicity:</u>	Rat, M&F; NOAEL:100 mg/kg, NOAEL:30 mg/kg; Ingestion	
<u>Germ Cell Mutagenicity:</u>	In vitro: Salmonella typhirium assay (Ames test): Negative In vivo: Chromosomal aberration intraperitoneal injection (Mouse Male): Negative	
<u>STOT – Single exposure</u>	May cause respiratory irritation.	



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

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Revision Number 0

STOT – Repeated exposure

Not classified based on available information
LOAEL (Rat, Oral): 69 mg/kg (Liver);
NOAEL (Rat, Dermal): 150 mg/kg;
LOAEC (Rat, Inhalation): 152 mg/m³ (Blood)

Aspiration Toxicity:

Not classified based on available information

12 - ECOLOGICAL INFORMATION:

PRODUCT

Ecotoxicity Information on the product has not been determined.

If data was found / known for the individual components, it is presented below

Component

CAS
Number:

Distillates (petroleum),
hydrotreated light

64742-47-8

Hazards to Aquatic Environment:

Not expected to be harmful to aquatic organisms.
Not expected to demonstrate chronic toxicity to aquatic organisms.

Acute hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Chronic hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Persistence & Degradability

Biodegradation: Expected to be inherently biodegradable.

BOD / COD Ratio: No Data Found

Partition Coefficient (Log P_{ow}): > 4.0

Petroleum gases, liquefied
sweetened (Propane/n-Butane)

68476-86-8

Hazards to Aquatic Environment:

Acute hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Chronic hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Persistence & Degradability

Biodegradation: No data available for the gas.

BOD / COD Ratio: No Data Found



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

Partition Coefficient (Log P_{ow}): <=2.8

Distillates (petroleum) hydrotreated middle

64742-46-7

Hazards to Aquatic Environment:

Not expected to be harmful to aquatic organisms.
Not expected to demonstrate chronic toxicity to aquatic organisms.

Acute hazards:

Fish: LL0, Oncorhynchus mykiss, 96 hr: 87556 mg/L

Aquatic Invertebrates: EL0, Daphnia Magna, 48 hr: 1000 mg/L

Aquatic Plants: ErL0, Pseudokirchneriella subcapitata, 72 hr: 1000 mg/L
NOELR, Pseudokirchneriella subcapitata, 72 hr: 1000 mg/L

Chronic hazards:

Fish: No Data Found

Aquatic Invertebrates: NOELR, Daphnia Magna, 21 day: >= 1 mg/L

Aquatic Plants: No Data Found

Persistence & Degradability

Biodegradation: Readily biodegradable
Media = Water, 28 days, 17.7 Percent degraded.

BOD / COD Ratio: No Data Found

Partition Coefficient (Log P_{ow}): > 4.0 (estimated)

2-butoxyethanol

111-76-2

Hazards to Aquatic Environment:

Acute hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Chronic hazards:

Fish: No Data Found

Aquatic Invertebrates: No Data Found

Aquatic Plants: No Data Found

Persistence & Degradability

Biodegradation: No data available for the gas.

BOD / COD Ratio: No Data Found

Partition Coefficient (Log P_{ow}): 0.8

13 - DISPOSAL CONSIDERATIONS:

Disposal Instructions:

Dispose of waste material according to local, state, federal, and provincial regulations.

RCRA & Hazardous Waste:

It is the responsibility of the waste generator to determine the proper waste identification and disposal method. Consult RCRA, Title 40 CFR 261 for hazardous waste classification and disposal.



SAFETY DATA SHEET

SDS#: 879809_E_initial

Product: RV Stabilizer Jack Lube

Initial Date Prepared: 04/21/2022

Date Revised: 04/21/2022

Revision Number 0

14 - TRANSPORT INFORMATION:

US DOT per 49 CFR 100-185: Regulated

Proper Shipping Name: Aerosols, Limited Quantity
Hazard Class/Division: 2.1
UN/NA Number UN1950
Packing Group N/A

IMDG: Refer to Current IMDG regulations for full shipping description requirements

IATA: This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation. The manufacturer does not offer this material for international shipping.

15 - REGULATORY INFORMATION:

US ASSOCIATED REGULATIONS (for mixture components):

OSHA HAZARD HazCom 2012, 29 CFR 1910.1200	TSCA	EPCRA 302 Extremely Hazardous Substances	EPCRA 304
HAZARDOUS	Listed or Exempt	None Listed	None Listed
SARA 311/312	EPCRA 313 Toxic Chemicals	CWA 307 / 311	CAA 112 Toxic Substances)
64742-47-8 64742-46-7	None Listed	None Listed	None Listed

Following Ingredients are cited on the following lists:

Component	CAS Number:	List Citations
Distillates (petroleum), hydrotreated light	64742-47-8	18, 20
Petroleum gases, liquefied sweetened (Propane/n-Butane)	68476-86-8	17
Distillates (petroleum) hydrotreated middle	64742-46-7	1, 4, 18, 20

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA Prop 65 Reproductive	16 = MA Right to Know
2 = ACGIH A1	7 = TSCA 5e	12 = CA Right to Know	17 = MN Right to Know
3 = ACGIH A2	8 = TSCA 6	13 = IL Right to Know	18 = NJ Right to Know
4 = OSHA Z	9 = TSCA 12b	14 = LA Right to Know	19 = NY Right to Know
5 = TSCA 4	10 = CA Prop 65 Cancer	15 = MI 293	20 = PA Right to Know
			21 = RI Right to Know

20211208

California Prop 65: Non known

COUNTRY CHEMICAL LISTINGS (for mixture components):

AICS (Australia)	DSL (Canada)
Components Listed Or exempt	Components Listed Or exempt



SAFETY DATA SHEET

SDS#: 879809_E Initial

Product: RV Stabilizer Jack Lube

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16 - OTHER INFORMATION:

HMIS Ratings:

HEALTH

2

FIRE

2

PHYSICAL HAZARD

0

Hazard Scale:

0= Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

* = Chronic Hazard

NFPA RATINGS:

HEALTH

2

FLAMMABILITY

2

REACTIVITY

0

OTHER

N/A

Hazard Scale:

0= Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

ACRONYMS

ACGIH:	American Conference of Governmental Industrial Hygienists	NFPA	National Fire Protection Association (US)
AICS:	Australian Inventory of Chemical Substances (AUS)	NICNAS:	National Industrial Chemicals Notification & Assessment Scheme
AUS:	Australia	NIOSH:	National Institute for Occupational Safety and Health (US)
CAA:	Clean Air Act (US)	NDA	No Data Available
CAN:	Canada	NDF	No Data Found
CDC:	Center for Disease Control (US)	NDSL	Non-Domestic Substances Inventory (CAN)
CFR:	Code of Federal Regulations (US)	NOEC:	No Observed Effect Concentration
CEPA:	Canadian Environmental Protection Act (CAN)	NTP:	National Toxicology Program (US DHHS)
CERCLA:	Comprehensive Environmental Response, Compensation & Liability Act (US)	OECD:	Organization for Economic Cooperation and Development
CWA:	Clean Water Act (US)	OEL:	Occupational Exposure Limit
DHHS:	Department of Health and Human Services (US)	OSHA (US):	Occupational Safety and Health Administration (US)
DOL:	Department of Labor (US)	PEL:	Permissible Exposure Limit
DOT:	Department of Transportation (US)	RCRA:	Resource Conservation and Recovery Act (EPS US)
DSL:	Domestic Substances List (CAN)	RTK:	Right to Know (US)
ECHA:	European Chemicals Agency	RQ	Reportable Quantity
EINECS	European Inventory of Existing Commercial Chemical Substances	SARA:	Superfund Amendments and Reauthorization Act (US)
ELINCS	European List of Notified Chemical Substances	STEL:	Short Term Exposure Limit
EPA:	Environmental Protection Agency (US)	STOT	Specific Target Organ Toxicity
EPCRA:	Emergency Planning & Community Right-to-Know Act (US)	TDG:	Transportation of Dangerous Goods (CAN)
GHS:	Global Harmonized System	TLV:	Threshold Limit Value
GRAS:	Generally Regarded as Safe (US)	TPQ:	Threshold Planning Quantity (US SARA)
HCIS:	Hazardous Chemical Information System (AUS)	TSCA	Toxic Substances Control Act
HMIS	Hazardous Material Information System	TWA:	Time Weighted Average
IARC:	International Agency for Research on Cancer	UEL	Upper Exposure Limit
IATA:	International Air Transport Association	US:	United States



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SDS#: 879809_E Initial

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IFRA: International Fragrance Association

WEEL: Workplace Environmental Exposure Level

IMDG: International Maritime Dangerous Goods

WHIMS: Workplace Hazardous Material Information System (CAN)

LOEC: Lowest Observed Effect Level

2
8

DISCLAIMER

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SAFETY DATA SHEET

1 of 7

Pro-Strength Wash & Wax

Section 1- Chemical Product and Company Identification

Product Name: Pro-Strength Wash & Wax

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Clean Agent

Product Code: 40493 (32 oz) and 40498 (Gallon)

Date of Preparation/Revision: December 12, 2014

In case of Emergency: 1-800-535-5053

Section 2- Hazards identification

Physical State: Liquid. [TRANSLUCENT, PALE YELLOW, LIQUID WITH CHARACTERISTIC SWEET ODOR]



Irritant

WARNING

GHS Classifications

Eye Damage / Irritation (Category 2B)
Acute Toxicity - Inhalation (Category 4)
Skin Damage / Irritation (Category 3)
Acute Oral Toxicity (Category 4)

Hazard Statements

H302 Harmful if swallowed
H316 Causes mild skin irritation
H320 Causes eye irritation
H332 Harmful if inhaled

Precautionary statements

P102 Keep out of reach of children
P233 Keep container tightly closed
P260 Do not breathe dust/fumes/gas/mist/vapors/spray
P264 Wash thoroughly after handling
P270 Do not eat, drink or smoke when using this product

Response statements

P330 Rinse mouth
P331 Do Not induce vomiting
P301 + P312 IF SWALLOWED: Call a Poison Center or Doctor/Physician if you feel unwell
P304 + P340 + P313 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention

SAFETY DATA SHEET

2 of 7

Pro-Strength Wash & Wax

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists get medical attention

P332 + P313 If skin irritation persists get medical attention

P321 Specific treatment (see First Aid Measures on Safety Data Sheet)

Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations

WARNING! This product may be harmful or fatal if swallowed. This product is irritating to the eyes, respiratory system and skin. This product is an aqueous solution which will not burn. Irritating and toxic fumes and gases may be released upon thermal processing or during combustion.

Potential Health Effects: Eyes

Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe over exposure can result in swelling of the conjunctiva along with tissue damage which may lead to blindness.

Potential Health Effects: Skin

This product is irritating to the skin. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, and possible tissue damage. Repeated contact with this material may produce dermatitis.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. If ingested, this product will immediately cause burns to the mouth, throat, esophagus and possibly the digestive tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Inhalation of vapors or mists of the product can cause sneezing, coughing and difficulty breathing.

Medical Conditions Aggravated by Exposure

Pre-existing skin and eye conditions.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

See toxicological information (section 11)

Section 3 - Composition, Information on Ingredients

<u>Name</u>	<u>CAS Number</u>	<u>% Volume</u>
Bis-(2-hydroxyethyl) (C12-15) alkyloxypropylamine Oxide	71486-82-3	2 - 4%
Sodium Salt of Coco-amidopropyl Betaine	61789-89-7	1 - 3%
Sodium Dodecylbenzene Sulfonate	25155-30-0	1 - 3%
Methyl N,N'-bis-(2-hydroxyethyl) isodecyloxypropyl Ammonium Chloride	68478-94-4	1 - 3%

Component Information/Information on Non-Hazardous Components

This product is considered to be non-hazardous under 29 CFR 1910.1200

SAFETY DATA SHEET

3 of 7

Pro-Strength Wash & Wax

Section 4 - First Aid Measures

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Eye contact** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
- Skin contact** For skin contact, wash immediately with soap and water. If irritation persists get medical attention.
- Ingestion** If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.
- Inhalation** If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If irritation persists get medical attention.
- Notes to Physician** Provide general supportive measures and treat symptomatically.

Section 5 - Fire-Fighting Measures

FLASH POINT: N/A

METHOD USED: N/A

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A **UPPER:** N/A

General Fire Hazards

This product is an aqueous solution which will not burn. Non-Flammable

Hazardous Combustion Products

Decomposition may yield carbon dioxide compounds and oxides of nitrogen.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other: none

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental release measures

Containment Procedures

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.

Clean-Up Procedures

Absorb spill with inert material such as: lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

SAFETY DATA SHEET

4 of 7

Pro-Strength Wash & Wax

Section 7- Handling and Storage

Handling Procedures

Open container carefully, as needed to relieve any build up of pressure. Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Use this product with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

Store in a cool, dry area. Do not freeze. Store away from direct sunlight and any sources of heat. Empty product containers may contain product residue. Do not reuse empty containers. Do not store this material in open or unlabeled containers.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles and face shield.

Personal Protective Equipment: Skin

Wear impervious (neoprene) gloves, impervious apron.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

Section 9 - Physical and Chemical Properties

Appearance:	Light Straw Translucent Liquid
Odor:	Fresh Fragrance
Physical State:	Liquid
pH: (@59° F / 15° C)	8.0 to 9.5
Freeze Point:	32° F (0° C)
Vapor pressure:	Not Applicable
Vapor density:	Not Applicable
Boiling Point:	>212°F (>100° C)

SAFETY DATA SHEET

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Pro-Strength Wash & Wax

Melting Point:	Not Determined
Solubility:	Completely
Specific Gravity: (@70° F / 21° C)	1.018
Flash Point (PMCC):	Not Flammable
Auto-ignition Temperature:	Not Flammable
Flammable Limits in Air by Volume:	Not Applicable
Evaporation Rate:	Similar to Water
Decomposition Temperature:	Not Available
Viscosity (cps):	100 – 300 cps
VOC (%):	< 2% by weight

Physical Properties: Additional Information

No additional information available

Section 10 - Stability and Reactivity

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid contact with extreme heat and incompatible materials.

Incompatibility

This product is incompatible with strong oxidizing agents.

Hazardous Decomposition

Decomposition may yield carbon dioxide, carbon monoxide and oxides of nitrogen.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute and Chronic Toxicity

General Product Information

No information available for the product.

This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Chronic Toxicity

No information available for the product.

Epidemiology

No epidemiological data is available for this product.

Neurotoxicity

No data available for this product.

Mutagenicity

No data available for this product.

Teratogenicity

No data available for this product.

Other Toxicological Information

No additional information available.

SAFETY DATA SHEET

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Pro-Strength Wash & Wax

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No data available for this product.

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport information

US DOT Information

This material is not hazardous as defined by 49CFR 172.101 by the US Department of Transportation.

IMDG

Refer to Current IMDG regulations for full shipping description requirements

IATA

This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation

Section 15 - Regulatory Information

U.S. Federal regulations

General Product Information

Product is biodegradable. No additional information available.

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SAFETY DATA SHEET

Pro-Strength Wash & Wax

State regulations

Connecticut Carcinogen Reporting: This material is not listed.
Connecticut Hazardous Material Survey: This material is not listed.
Florida substances: This material is not listed.
Illinois Chemical Safety Act: This material is not listed.
Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
Louisiana Reporting: This material is not listed.
Louisiana Spill: This material is not listed.
Massachusetts Spill: This material is not listed.
Massachusetts Substances: This material is listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is listed.
Rhode Island Hazardous Substances: This material is not listed.
California Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

Section 16 - Other information

NFPA CODES: Health	1
Flammability	1
Reactivity	0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

Date of Preparation/Revision: December 12, 2014 (Supersedes all previous SDS)

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MATERIAL SAFETY DATA SHEET

1 of 5

Ronson 165 gram Butane Fuel

PRODUCT NAME: **Ronson 165 gram Butane Fuel**

NFPA CODES: Health 1
Flammability 4
Reactivity 0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

PRODUCT CODE: 57496

=====**SECTION I - MANUFACTURER IDENTIFICATION**=====

MANUFACTURER'S NAME: **Camco Manufacturing, Inc.**
ADDRESS : **121 Landmark Drive**
Greensboro, NC 27409

EMERGENCY PHONE : **1-800-535-5053** DATE REVISED : 10/06/2004
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : CAMCO MANUFACTURING INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004

=====**SECTION II - COMPOSITION / INFORMATION ON MATERIALS**=====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
Iso-Butane	75-28-5		100

=====**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**=====

BOILING RANGE: 10 - 11° F
VAPOR DENSITY: 2
SOLUBILITY IN WATER: Slightly Soluble
APPEARANCE AND ODOR: Clear, Colorless Gas
SPECIFIC GRAVITY (H2O=1): 0.56 @ 68° F
EVAPORATION RATE: >1

MATERIAL SAFETY DATA SHEET

2 of 5

Ronson 165 gram Butane Fuel

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: -76° F

METHOD USED: CC

EXPLOSIVE LIMITS FOR 100% METHANOL - LOWER: 1.8% **UPPER:** 8.4%

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or mist. Water may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Handle as an extremely flammable liquid. Butane vapors are lighter than air and disperse quickly in air or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near container, even if it is empty.

===== SECTION V - REACTIVITY DATA =====

STABILITY: Stable

CONDITIONS TO AVOID: Excessive heat

INCOMPATIBILITY (MATERIALS TO AVOID): Reacts vigorously with oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION: Do not occur

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION: Breathing of vapor or mist is possible. Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing large amounts can be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

EYE: May cause mild irritation. Symptoms include stinging, tearing, and redness.

MATERIAL SAFETY DATA SHEET

3 of 5

Ronson 165 gram Butane Fuel

SKIN: May cause mild irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of the skin.

INGESTION: Swallowing this material may be harmful.

SYMPTOMS OF EXPOSURE: Symptoms of exposure may include: nausea, vomiting, diarrhea, irritation (nose, throat, airways), dizziness, drowsiness, weakness, fatigue, headache, unconsciousness, leg cramps, pain in the abdomen and lower back, blurred vision, shortness of breath, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness).

HEALTH HAZARDS (ACUTE AND CHRONIC): Non-Toxic – But may displace oxygen in air. No apparent ill effects in breathing concentrations of 5% for 2 hours.

CARCINOGENICITY: No

NTP CARCINOGEN: No

IARC MONOGRAPHS: No

OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Move individual to fresh air. If symptoms persist seek medical attention. If breathing is difficult administer oxygen provided a qualified operator is present.

EYE CONTACT: Flush immediately with large quantities of water for 15 minutes, lifting eye lids to ensure that all surfaces are flushed. Seek medical attention.

SKIN: Remove contaminated clothing and wash contaminated skin with large amounts of soap and water. If irritation persists, get medical attention. Launder clothing before reuse.

INGESTION: Seek medical attention immediately. If individual is conscious, they may dilute by drinking water. If individual is drowsy or unconscious, do not give anything by mouth. Under either circumstance, do not leave the individual unattended if at all possible. Contact a physician, medical facility, or poison control center immediately.

MATERIAL SAFETY DATA SHEET

4 of 5

Ronson 165 gram Butane Fuel

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate all ignition sources, such as flames, hot surfaces, and sources of electrical, static or frictional sparks. Absorb liquid with absorbent material. If necessary, contain spill by diking.

WASTE DISPOSAL METHOD: Dispose of in accordance with all applicable local, state and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

No smoking or open flame in storage use or handling areas. Avoid storage with incompatible materials.

OTHER PRECAUTIONS

Store in closed containers in a cool, dry, well ventilated area. Keep away from sparks and open flame.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION

Use an approved NIOSH approved respirator when airborne concentrations exceed exposure limits.

VENTILATION: Provide sufficient ventilation to maintain airborne concentrations, below exposure limits.

PROTECTIVE GLOVES: Wear appropriate impermeable gloves

EYE PROTECTION:

Use chemical safety glasses, goggles, or faceshields for eye protection.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: It is the responsibility of the user to determine the proper protective equipment that is needed based on how the product will be used.

WORK/HYGIENIC PRACTICES:

Wash thoroughly after handling.

MATERIAL SAFETY DATA SHEET

5 of 5

Ronson 165 gram Butane Fuel

===== SECTION IX - DISCLAIMER =====

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Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations



Printing date: 12/13/2016

Revision: 12/13/2016

1 Identification

- **Product identifier**
- **Trade name: Pentofrost SF**
- **Recommended use and restriction on use**
- **Recommended use:** Coolant / Anti-freeze.
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
CRP Industries
35 Commerce Dr.
Cranbury, NJ 08512
(609) 578-4100
info@crpindustries.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 4 H302 Harmful if swallowed.
STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**
 
GHS07 GHS08
- **Signal word:** Warning
- **Hazard statements:**
H302 Harmful if swallowed.
H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Precautionary statements:**
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P330 Rinse mouth.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· NFPA ratings (scale 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *1
Fire = 1
Reactivity = 0

(Cont'd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:

107-21-1	ethylene glycol ⚠ STOT RE 2, H373 ⚠ Acute Tox. 4, H302	>80%
1310-73-2	sodium hydroxide ⚠ Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	0.1-<0.5%

· Additional information: For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

Headache

Cramp

Thirst

Dizziness

Nausea

Acidosis

Disorientation

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- **Danger:**
Harmful if swallowed.
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Indication of any immediate medical attention and special treatment needed:**
Contains ethylene glycol. Consult literature for specific antidotes.
Monitor circulation, possible shock treatment.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Cool endangered receptacles with water spray.
No relevant information available.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
- **Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Use only in well ventilated areas.
 - Prevent formation of aerosols
 - Avoid splashes or spray in enclosed areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

107-21-1 ethylene glycol

TLV (USA)	Short-term value: NIC-127* NIC-10** mg/m ³ , NIC-50* ppm Long-term value: NIC-63.5* mg/m ³ , NIC-25* ppm Ceiling limit value: (100) mg/m ³ (H); *inh. fraction + vapor, P:**inh. fraction, H
EL (Canada)	Short-term value: 20** mg/m ³ Long-term value: 10** mg/m ³ Ceiling limit value: 100* mg/m ³ , 50*** ppm *Aerosol; **Particulate; ***Vapour
EV (Canada)	Ceiling limit value: 100 mg/m ³
LMPE (Mexico)	Ceiling limit value: 100* mg/m ³ A4, *solo aerosol

1310-73-2 sodium hydroxide

PEL (USA)	Long-term value: 2 mg/m ³
REL (USA)	Ceiling limit value: 2 mg/m ³
TLV (USA)	Ceiling limit value: 2 mg/m ³
EL (Canada)	Ceiling limit value: 2 mg/m ³
EV (Canada)	Ceiling limit value: 2 mg/m ³
LMPE (Mexico)	Ceiling limit value: 2 mg/m ³

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- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Engineering controls:** Provide adequate ventilation.

- **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device when aerosol or mist is formed.

For spills, respiratory protection may be advisable.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

- **Protection of hands:**

Gloves not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR

Neoprene gloves

Nitrile rubber, NBR

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

- **Limitation and supervision of exposure into the environment**

No relevant information available.

- **Risk management measures**

See Section 7 for additional information.

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No relevant information available.

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form:

Liquid

Color:

Red

· Odor:

Light

· Odor threshold:

Not determined.

· pH-value at 20 °C (68 °F):

7.9 (50% solution)

· Melting point/Melting range:

Not determined.

· Boiling point/Boiling range:

175 °C (347 °F)

· Flash point:

128 °C (262 °F)

· Flammability (solid, gaseous):

Not applicable.

· Auto-ignition temperature:

>260 °C (>500 °F)

· Decomposition temperature:

Not determined.

· Danger of explosion:

Product does not present an explosion hazard.

· Explosion limits

Lower:

3.2 Vol %

Upper:

53.0 Vol %

· Vapor pressure at 20 °C (68 °F):

0.1 hPa

· Density at 20 °C (68 °F):

1.13 g/cm³ (9.43 lbs/gal)

· Relative density:

Not determined.

· Vapor density:

Not determined.

· Evaporation rate:

Not determined.

· Solubility in / Miscibility with Water:

Fully miscible.

· Partition coefficient (n-octanol/water):

Not determined.

· Viscosity

Dynamic:

Not determined.

Kinematic:

Not determined.

· Other information

No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.

· **Chemical stability:**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No relevant information available.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products** Possible in traces.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

107-21-1 ethylene glycol

Oral LD50 5840 mg/kg (rat)

Dermal LD50 9530 mg/kg (rabbit)

- **Primary irritant effect:**
- **On the skin:** Slight irritant effect on skin and mucous membranes.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** No sensitizing effects known.

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Harmful if swallowed.
- **Repeated dose toxicity:**
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:**
May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** Moderately /partly biodegradable
- **Bioaccumulative potential:** Does not accumulate in organisms
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | | |
|--|----------------|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | Not regulated. | |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR, IMDG, IATA | Not regulated. | |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR, IMDG, IATA · Class | Not regulated. | |
| <ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA | Not regulated. | |
| <ul style="list-style-type: none"> · Environmental hazards · Marine pollutant: | No | |

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- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

107-21-1 | ethylene glycol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic categories**· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 12/13/2016 / -

- **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

- **Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

L-10700



Super ATF

M	H	CHEMICAL NAME	SUPER ATF
	F	MANUFACTURER	Conoco Phillips
	OR	DATE	4-10/T.O. D/E
	PE		

Lab Safety Supply Inc.

Reorder No. 17135

1. Product and Company Identification

Product Name: Super ATF

MSDS Number: 778846

Intended Use: UNDYED Automatic Transmission Fluid

Manufacturer/Supplier: ConocoPhillips Lubricants
600 N. Dairy Ashford
Houston, Texas 77079-1175

Emergency Health and Safety Number: Chemtrec: 800-424-9300 (24 Hours)

Customer Service: 888-766-7676

Technical Information: 800-255-9556

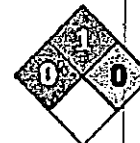
MSDS Information: Internet: <http://w3.conocophillips.com/NetMSDS/>

2. Hazards Identification

Emergency Overview

NFPA

This material is not considered hazardous according to OSHA criteria.



Appearance: Red
Physical Form: Liquid
Odor: Petroleum

Potential Health Effects

Eye: Contact may cause mild eye irritation including stinging, watering, and redness.

Skin: Contact may cause mild skin irritation including redness and a burning sensation. Prolonged or repeated contact can defat the skin, causing drying and cracking of the skin, and possibly dermatitis (inflammation). No harmful effects from skin absorption are expected.

Inhalation (Breathing): No information available on acute toxicity.

Ingestion (Swallowing): No harmful effects expected from ingestion.

Signs and Symptoms: Effects of overexposure may include irritation of the digestive tract, nausea and diarrhea. Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

Pre-Existing Medical Conditions: Conditions aggravated by exposure may include skin disorders.

See Section 11 for additional Toxicity Information.

3. Composition/Information on Ingredients

Component	CASRN	Concentration
Lubricant Base Oil (Petroleum)	VARIOUS	>90
Additives	PROPRIETARY	<10

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

Eye Contact: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin Contact: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

Inhalation (Breathing): If respiratory symptoms develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If symptoms persist, seek medical attention.

Ingestion (Swallowing): First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

Notes to Physician: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

5. Fire-Fighting Measures

NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0 (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

Unusual Fire & Explosion Hazards: This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of sulfur, nitrogen or phosphorus may also be formed.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

6. Accidental Release Measures

Personal Precautions: This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, or unauthorized drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

Methods for Containment and Clean-Up: Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal.

7. Handling and Storage

Precautions for safe handling: Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Conditions for safe storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated area away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

8. Exposure Controls/Personal Protection

Component	US/ACGIH	OSHA	Other
Lubricant Base Oil (Petroleum)	TWA: 5mg/m ³ STEL: 10 mg/m ³ as Oil Mist, if generated	TWA: 5 mg/m ³ as Oil Mist, if generated	—

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

Skin/Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Suggested protective materials: Nitrile

Respiratory Protection: Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with R or P95 filters may be used.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health (IDLH).

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

9. Physical and Chemical Properties

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

Appearance:	Red CLEAR
Physical Form:	Liquid
Odor:	Petroleum
Odor Threshold:	No data

pH:	Not applicable
Vapor Pressure:	<1 mm Hg
Vapor Density (air=1):	>1
Boiling Point/Range:	No data
Melting/Freezing Point:	No data
Solubility in Water:	Negligible
Partition Coefficient (n-octanol/water) (Kow):	No data
Specific Gravity:	0.86 - 0.87 @ 60°F (15.6°C)
Bulk Density:	7.17 - 7.25 lbs/gal
Viscosity:	7.1 - 8.1 cSt @ 100°C; 30.0 - 39.4 cSt @ 40°C
Percent Volatile:	Negligible
Evaporation Rate (nBuAc=1):	<1
Flash Point:	Minimum 315°F / 157°C
Test Method:	Pensky-Martens Closed Cup (PMCC), ASTM D93, EPA 1010
LEL (vol % in air):	No data
UEL (vol % in air):	No data
Autoignition Temperature:	No data

10. Stability and Reactivity

Stability: Stable under normal ambient and anticipated conditions of use.

Conditions to Avoid: Extended exposure to high temperatures can cause decomposition.

Materials to Avoid (Incompatible Materials): Avoid contact with strong oxidizing agents and strong reducing agents.

Hazardous Decomposition Products: Not anticipated under normal conditions of use.

Hazardous Polymerization: Not known to occur.

11. Toxicological Information

Chronic Data:

Lubricant Base Oil (Petroleum)

Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including severe hydrocracking/hydroprocessing to reduce aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3 percent PAH's and are not considered carcinogens by NTP, IARC, or OSHA.

Acute Data:

Component	Oral LD50	Dermal LD50	Inhalation LC50
Lubricant Base Oil (Petroleum)	>5 g/kg	>2 g/kg	No data

12. Ecological Information

Ecotoxicity: Experimental studies show that acute aquatic toxicity values are greater than 1000 mg/l. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions.

Mobility: Volatilization to air is not expected to be a significant fate process due to the low vapor pressure of this material. In water, base oils will float and spread over the surface at a rate dependent upon viscosity. There will be significant removal of hydrocarbons from the water by sediment adsorption. In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main fate process is expected to be slow biodegradation of base oil components in soil and sediment.

Persistence and degradability: The hydrocarbons in this material are not readily biodegradable, but since they can be degraded by microorganisms, they are regarded as inherently biodegradable.

Bioaccumulation Potential: Log Kow values measured for the hydrocarbon components of this material range from 4 to over 6, and are therefore regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.

13. Disposal Considerations

13. Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and federal requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

This material under most intended uses would become "Used Oil" due to contamination by physical or chemical impurities. Whenever possible, Recycle Used Oil in accordance with applicable federal and state or local regulations. Container contents should be completely used and containers should be emptied prior to discard.

14. Transportation Information

U.S. Department of Transportation (DOT)

Shipping Description: *Not regulated*
Note: *If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil)*

International Maritime Dangerous Goods (IMDG)

Shipping Description: *Not regulated*
Note: *U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25.*

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)

UN/ID #: *Not regulated*
Note: *U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24.*

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
Packaging Instruction #:	---	---	---
Max. Net Qty. Per Package:	---	---	---

15. Regulatory Information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)

Acute Health:	No
Chronic Health:	No
Fire Hazard:	No
Pressure Hazard:	No
Reactive Hazard:	No

CERCLA/SARA - Section 313 and 40 CFR 372:

This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372.

EPA (CERCLA) Reportable Quantity (in pounds):

This material does not contain any chemicals with CERCLA Reportable Quantities.

California Proposition 65:

This material does not contain any chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the warning requirements of California Proposition 65.

Canadian Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the Regulations.

WHMIS Hazard Class
None

Additional Chemical Inventories:

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.
All components are either on the DSL, or are exempt from DSL listing requirements.

U.S. Export Control Classification Number: EAR99

16. Other Information

References used in compiling safety data sheet information:
Dangerous Substances Directive 67/548/EEC

Date of Issue:	02-Sep-2008
Status:	Final
Revised Sections or Basis for Revision:	Composition (Section 3) Physical Properties (Section 9)
MSDS Number:	778846

Guide to Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Agreement on Dangerous Goods by Road; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); EINECS - European Inventory of Existing Commercial Chemical Substances; EPA = [US] Environmental Protection Agency; Germany-TRGS = Technical Rules for Dangerous Substances; IARC = International Agency for Research on Cancer; ICAO/IATA = International Civil Aviation Organization / International Air Transport Association; IMDG = International Maritime Dangerous Goods; Ireland-HSA = Ireland's National Health and Safety Authority; LEL = Lower Explosive Limit; N/A = Not Applicable; N/D = Not Determined; NTP = [US] National Toxicology Program; RID = Regulations Concerning the International Transport of Dangerous Goods by Rail; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value; TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; UK-EH40 = United Kingdom EH40/2005 Workplace Exposure Limits

Disclaimer of Expressed and Implied Warranties:

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

SAFETY DATA SHEET

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Boiler Antifreeze -100

Section 1- Chemical Product and Company Identification

Product Name: Boiler Antifreeze -100

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Antifreeze

Product Code: 30027 (Gallon), 30029 (5 Gallon) and 30028 (55 Gallon Drum)

Date of Preparation/Revision: September 15, 2017

In case of Emergency: 1-800-535-5053

Section 2- Hazards identification

Physical State: Liquid. [CLEAR, RED, LIQUID WITH CHARACTERISTIC SWEET ODOR]

WARNING

GHS Classifications

Skin irritation (Category 3)
Eye irritation (Category 2B)

Hazard Statements

H316 Causes mild skin irritation.
H320 Causes eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling

Response statements

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313 If eye irritation persists get medical advice/attention
P332+313 If skin irritation occurs: Get medical advice/attention

Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations

This material is NOT HAZARDOUS by OSHA Hazard Communication definition.

Slightly combustible liquid. Do not handle near heat, sparks, or open flame.

Warning! May cause minor eye irritation. High aerosol concentrations may cause mild irritation of the nose and throat as well as central nervous system depression. Not expected to cause skin irritation. Not expected to be a sensitizer.

Potential Health Effects: Eyes

Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe over exposure can result in swelling of the conjunctiva along with tissue damage which may lead to blindness.

Potential Health Effects: Skin

This product is irritating to the skin. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, and possible tissue damage. Repeated contact with this material may produce dermatitis.

Potential Health Effects: Ingestion

Ingestion of high doses may cause discomfort and irritation of the gastrointestinal tract

SAFETY DATA SHEET

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Boiler Antifreeze -100

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Inhalation of vapors or mists of the product can cause sneezing, coughing and difficulty breathing. High aerosol concentrations may cause mild reversible irritation of the nose and throat as well as CNS depression

Medical Conditions Aggravated by Exposure

Pre-existing skin and eye conditions.

HMIS Ratings: Health: 0 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

See toxicological information (section 11)

Section 3 - Composition, Information on Ingredients

<u>Name</u>	<u>CAS Number</u>	<u>% Volume</u>
Propylene Glycol	57-55-6	60 - 65%
Dipotassium Phosphate	7758-11-4	1 - 5%

Component Related Regulatory Information

This product is not regulated as defined by 49CFR 172.101 by the US Department of Transportation.

Component Information/Information on Non-Hazardous Components

This product is considered to be non-hazardous by 29 CFR 1910.1200

Section 4 - First Aid Measures

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 3 of this MSDS.

Eye contact Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

Skin contact Not expected to present a significant skin hazard under anticipated conditions of normal use. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

Ingestion Ingestion unlikely. If large quantity swallowed, give lukewarm water (pint/ 1/2 litre) if victim completely conscious/alert. Obtain medical attention. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Inhalation If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If irritation persists get medical attention.

Notes to Physician

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 - Fire-Fighting Measures

FLASH POINT: 228.2 °F (109 °C) **METHOD USED:** PMCC

AUTO-IGNITION TEMPERATURE: 699.8 °F (371 °C)

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: ~ 2.4 vol % UPPER: ~ 17.4 vol %

General Fire Hazards

This product is an aqueous solution which will not burn. Non-Flammable

SAFETY DATA SHEET

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Boiler Antifreeze -100

Hazardous Combustion Products

Decomposition may yield carbon monoxide compounds and other toxic gases.

Extinguishing Media

SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

Fire Fighting Guidance:

Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. May travel long distances along the ground before igniting and flashing back to vapor sources. Fine sprays/mists may be combustible at temperatures below normal flash point. Aqueous solutions containing less than 95% propylene glycol by weight have no flash point as obtained by standard test methods. However aqueous solutions of propylene glycol greater than 22% by weight, if heated sufficiently, will produce flammable vapors. Always drain and flush systems containing propylene glycol with water before welding or other maintenance. Refer to NFPA Code 13 for guidance in using propylene glycol in sprinkler system applications. Move containers from fire area if you can do it without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

NFPA Ratings: Health: 0 Fire: 1 Reactivity: 0 Other: none

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental release measures

Containment Procedures

In case of accidental spill, may contaminate water supplies/pollute public waters. Evacuate/limit access. Equip responders with proper protection. Extinguish ignition sources; stop release; prevent flow to sewers or public waters. Notify fire and environmental authorities. Restrict water use for cleanup. Slippery walking/spread granular cover or soak up. Impound/recover large land spill; soak up small spill with inert solids. Use suitable disposal containers. On water, material is soluble and will disperse rapidly unless contained and collected quickly to minimize dispersion. Report per regulatory requirements.

Clean-Up Procedures

Absorb spill with inert material such as: lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

Section 7- Handling and Storage

Handling Procedures

Hygroscopic. Handle with care. After handling, always wash hands thoroughly with soap and water. Always drain and flush systems containing propylene glycol with water before welding or other maintenance. Wear recommended personal protective equipment. Observe precautions pertaining to confined space entry.

SAFETY DATA SHEET

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Boiler Antifreeze -100

Storage Procedures

Hygroscopic. Keep drums tightly closed to prevent contamination. Store away from heat, sparks, open flames, strong oxidizing agents and direct sunlight. Store at 65-90°F (18-32°C). Stainless steel containers. Lined steel. Mild steel. Reinforced plastic. Use dry nitrogen or low dew point air for tank padding.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles and face shield.

Personal Protective Equipment: Skin

Wear impervious (neoprene) gloves, impervious apron.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

Section 9 - Physical and Chemical Properties

Appearance:	Clear Red Liquid
Odor:	No Odor
Physical State:	Liquid
pH: (@59° F / 15° C)	7.5 – 9.5
Freeze Point:	-70° F (-56.67° C)
Vapor pressure:	Not Applicable
Vapor density:	Not Applicable
Boiling Point:	>228°F (>109° C)
Melting Point:	Not Determined
Solubility (Water):	Completely
Specific Gravity: (@70° F / 21° C)	1.040
Burst Protection:	-100° F (-73.3° C)
Flash Point (PMCC):	228.2° F (109° C)
Auto-ignition Temperature:	699.8° F (371° C)
Flammable Limits in Air by Volume:	LOWER: ~ 2.4 vol % UPPER: ~ 17.4 vol %
Evaporation Rate:	Similar to Water
Decomposition Temperature:	329° F (165°C)
Viscosity (cps):	< 50cps

Physical Properties: Additional Information

No additional information available

SAFETY DATA SHEET

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Boiler Antifreeze -100

Section 10 - Stability and Reactivity

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid contact with extreme heat and oxidizing agents.

Incompatibility

Reacts with strong oxidizing agents, strong acid and Isocyanates.

Hazardous Decomposition

Decomposition may yield carbon monoxide and other toxic fumes.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Product Summary

No additional toxicology information is available for this product itself. (See Component Toxicity Information).

Component Information

Propylene Glycol 57-55-6

Acute Toxicity - Lethal Doses

LD50 (Oral) Rat 22,000 MG/KG BWT

LD50 (Skin) Rabbit. 20,800 MG/KG BWT

Irritation

Skin: Slight skin irritant. Repeated or prolonged contact with skin may cause dermatitis.

Eye: May cause minor eye irritation. Effects of eye irritation are reversible.

Sensitization

Not expected to cause sensitization by skin contact, however skin reactions of unknown etiology have been described in some hypersensitive individuals following topical application.

Target Organ Effects

Skin: Repeated or prolonged contact with skin may cause defatting and drying of the skin which may result in dermatitis.

Repeated Dose Toxicity

No adverse systemic changes were reported in rats or dogs following repeated dietary exposure to high concentrations of propylene glycol. Cats responded with species-specific hematological changes (Heinz body formation) yet all other tissues were unaffected. No systemic effects, but mild eye and nasal irritation were noted in rats following sub-chronic exposure to high concentrations of propylene glycol aerosol. Overall propylene glycol is of low inherent toxicity following repeated oral or inhalation exposure.

Reproductive Effects

No adverse effect on reproductive performance was seen in male and female mice exposed continuously to high doses of propylene glycol in drinking water for up to 3 months.

Developmental Effects

Results from studies in pregnant rats, mice, hamsters and rabbits demonstrate that propylene glycol is not teratogenic or fetotoxic.

Genetic Toxicity

Negative for genotoxicity both in vitro and in vivo tests.

SAFETY DATA SHEET

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Boiler Antifreeze -100

Carcinogenicity

No increase in tumors was noted in rats and dogs exposed to high concentrations of propylene glycol via the diet for up to 2 years. The incidence of skin tumors was unaltered in mice following dermal application over a lifetime. Not listed by IARC, NTP, or OSHA.

Other Toxicological Information

No additional information available.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

This material is expected to be non-hazardous to aquatic species.

B: Component Analysis - Ecotoxicity

Propylene Glycol

Ecotoxicity

This material is expected to be non-hazardous to aquatic species.

Acute toxicity to fish

LC50 / 96 HOUR fathead minnow 51,400 mg/l

LC50 / 96 HOUR salmon 51,600 mg/l

Acute toxicity to aquatic invertebrates

EC50 / 48 HOUR Daphnia magna. 43,500 mg/l

EC50 / 48 HOUR saltwater mysid. 27,300 mg/l

Toxicity to aquatic plants

EC50 / 72 HOUR Freshwater Algae. 24,200 mg/l

EC50 / 72 HOUR Marine algae 19,300 mg/l

Toxicity to microorganisms

Summary: No Data Available.

Chronic toxicity to fish

Summary: No Data Available.

Chronic toxicity to aquatic invertebrates

IC25 / waterflea. 13,470 mg/l

Summary: A three generation reproductive study.

Environmental Fate

No other data available for this product.

Section 13 - Disposal Considerations

Comply with federal, state, or local regulations for disposal. Landfill solids at permitted sites. Burn concentrated liquids, diluting with clean, low viscosity fuel. Avoid flameouts and assure that emissions comply with all applicable standards/regulations. Dilute aqueous waste may biodegrade. Assure effluent complies with applicable regulations.

Section 14 - Transport information

US DOT Information

This material is not hazardous as defined by 49CFR 172.101 by the US Department of Transportation.

IMDG

Refer to Current IMDG regulations for full shipping description requirements

SAFETY DATA SHEET

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Boiler Antifreeze -100

IATA

This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation

Section 15 - Regulatory Information

U.S. Federal regulations

General Product Information

Product is listed under the TSCA. No additional information available.

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: Chemicals with provided CAS numbers in this material are not subject to the reporting requirements of CERCLA.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Based upon available information, this material is not classified as a health and/or physical hazard according to Section 311 & 312.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels established by SARA Title III, Section 313 and 40 CFR 372.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

Connecticut Carcinogen Reporting: This material is not listed.

Connecticut Hazardous Material Survey: This material is not listed.

Florida substances: This material is not listed.

Illinois Chemical Safety Act: This material is not listed.

Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.

Louisiana Reporting: This material is not listed.

Louisiana Spill: This material is not listed.

Massachusetts Spill: This material is not listed.

Massachusetts Substances List:

Extraordinarily hazardous substances must be identified when present in materials at levels greater than state specified criterion. The criterion is $\geq 0.0001\%$. Hazardous Substances (MSL-HS) on the MSL must be identified when present in materials at greater than the state specified criterion. The criterion is $\geq 1\%$. Components with CAS numbers present in this material, at levels specified in Section 2 - Composition do not require reporting under the statute.

Michigan Critical Material: This material is not listed.

Minnesota Hazardous Substances: This material is not listed.

New Jersey Hazardous Substances: This material is listed.

New Jersey Spill: This material is not listed.

New Jersey Toxic Catastrophe Prevention Act: This material is not listed.

New York Acutely Hazardous Substances: This material is not listed.

New York Toxic Chemical Release Reporting: This material is not listed.

Pennsylvania RTK Hazardous Substances:

Hazardous Substances listed by the State of Pennsylvania must be identified when present in materials at levels greater than the state specified criterion. The criterion is $\geq 1\%$. Components with CAS numbers in this material at a level which could require reporting under the statute are: **Propylene Glycol**

Special Hazardous Substances listed by the State of Pennsylvania must be identified when present in materials at levels greater than the state specified criterion. The criterion

SAFETY DATA SHEET

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Boiler Antifreeze -100

is $\geq 0.01\%$. Components with CAS numbers present in this material, at levels specified in Section 2 - Components, do not require reporting under the statute.

Rhode Island Hazardous Substances: This material is not listed

California Prop 65 Warning:

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

Section 16 - Other information

NFPA CODES: Health	0
Flammability	1
Reactivity	0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

Date of Preparation/Revision: September 15, 2017 (Supersedes all previous MSDS and SDS)

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of their own use, handling and disposal of this product.

SAFETY DATA SHEET
Concrobium House and Deck Wash

Issuing Date: May 11, 2015

Revision Date: February 13 2017

Revision Number: 2

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier:

Product Name

Concrobium House and Deck Wash

Other Identification Means:

Synonyms

None

Use of Substance/Preparation and Restrictions:

Recommended Use:

Cleaner

Uses Advised Against:

No information available

SDS Supplier Details:

Company Name:

Siamons International Inc.

Company Identification:

48 Galaxy Blvd., Unit 413
Toronto, Ontario Canada
M9W 6C8

Company Emergency Telephone Number

Emergency Phone: 866 811 4148

2. HAZARD IDENTIFICATION

Emergency Overview:

OSHA / WHMIS 2015 Hazards

Not hazardous.

Classification of substance or mixture

GHS-US/Canadian classification:

Not hazardous

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS):

None.

Signal Word (GHS):

None

Hazard Statements (GHS):

None

Precautionary Statements (GHS):

P262: Do not get in eyes, on skin or on clothing.

P305 + P351: IF IN EYES: Rinse with water for several minutes. Repeat if needed.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

SAFETY DATA SHEET

Concrobium House and Deck Wash

Issuing Date: May 11, 2015

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Description: Chemical

Ingredient	CAS#	% by Wt	Classification
Sodium Bicarbonate	144-55-8	1-5	Eye Irritant Category 2B – H320
Sodium Gluconate	527-07-1	1-5	Eye Irritant Category 2B - H320
Sodium Carbonate	497-19-8	1-5	Skin Irritant Category 2 – H315 Eye Irritant Category 2A - H319
Alcohol Ethoxylate	68991-48-0	1-5	Skin Irritant Category 2 – H315 Eye Irritant Category 2A - H319
Di Sodium Metasilicate	6834-92-0	1-5	Acute Toxicity Category 4 (Oral) - H302 Skin Corrosive Category 1A -H314
Potassium Hydroxide	1310-58-3	1-5	Skin Corrosive Category 1A –H314 Eye Corrosive Category 1 - H318
Alanine, N,N-bis(carboxymethyl)-, trisodium salt	164462-16-2	1-5	Skin Irritant Category 2 – H315 Eye Irritant Category 2A - H319

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. If symptoms persist consult physician.
Eye Contact:	Remove contacts. Flush with water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Repeat if required. If irritation persists get medical attention.
Skin Contact:	Thoroughly wash exposed skin with soap and water. Remove any contaminated clothing and wash before reuse.
Ingestion:	Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personal. Never give anything to an unconscious person. Get medical aid.
Notes to Physician:	Treatment based on judgment of attending physician.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Flood with water for extinguishing agent. CO2, dry chemical, alcohol resistant foam
Unsuitable extinguishing media:	No information available.
Special exposure hazards	Thermal decomposition releases irritating gases.
Special safety equipment:	Self-contained positive pressure breathing apparatus and protective clothing.

SAFETY DATA SHEET

Concrobium House and Deck Wash

Issuing Date: May 11, 2015

Revision Date: February 13 2017

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe mist.

For Non-Emergency Personnel:

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel:

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up:

For Containment: Contain any spills with dikes to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately with absorbent and dispose of waste safely.

Reference to Other Sections: See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Information about fire and explosion protection:

Keep respiratory protective device available.

No special measures required.

Conditions for safe storage, including any incompatibilities:

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Protect from humidity and water.

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

Keep container tightly sealed.

Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:

Use local exhaust or dilution ventilation.

Hand protection:

Chemical resistant gloves.

Eye protection:

Safety goggles.

Skin protection:

Use body-covering impervious clothing.

Working hygiene:

Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.

SAFETY DATA SHEET

Concrobium House and Deck Wash

Issuing Date: May 11, 2015

Revision Date: February 13 2017

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Exposure Guidelines:

Source Material
Potassium Hydroxide

TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³
	2 mg/m ³		2mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid.	Specific gravity:	1.0-1.01g/cm ³ .
Colour:	Clear transparent liquid.	Solubility in water:	Soluble.
Odour:	Slight odor.		
pH:	10.1-10.5	Flash point:	None
Boiling point/boiling range:	Est 100 °C 212 °F	Vapor density:	Not known

10. STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient temperature and pressure.
Chemical stability	No decomposition if stored and applied as directed.
Thermal decomposition/conditions to avoid:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
Conditions to avoid	Incompatible agents. Avoid excessive heat for prolonged periods of time. Avoid frost
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other gases or vapours.
Materials to avoid	Oxidizing agents, acids.
Hazardous polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification

Alcohol Ethoxylate CAS # 68991-48-0:
LD50 (Oral) Rat 2,000 mg/Kg

Sodium Bicarbonate CAS # 144-55-8:
LD 50 (Oral) Rat 4,220 mg/Kg

Sodium Carbonate CAS # 497-19-8:
LD 50 (Oral) Rat 4,090 mg/Kg

Potassium Hydroxide CAS # 1310-58-3:
LD 50 (Oral) Rat 273 mg/Kg

Primary irritant effect:

on the skin: None known.

on the eye: Slight irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Date: February 13., 2017

SDS: Concrobium House and Deck Wash

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Issuing Date: May 11, 2015

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None known

12. ECOLOGICAL INFORMATION

Toxicity:	Not classified
Persistence and Degradability:	Not available
Bioaccumulative Potential:	Not available
Mobility in Soil:	Not available.
Other Adverse Effects	Not available.
Other Information:	All of the organic components of this product are readily biodegradable.

13. DISPOSAL

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.
Ecology – Waste Materials: Avoid release to the environment.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation: Not Regulated
Canadian T.D.G.: Not Regulated
Water Transportation: Not Regulated
Air Transportation: Not Regulated

15. REGULATION

SARA Section Yes
SARA (313) Chemicals Yes
EPA TSCA Inventory Appears.
Canadian DSL Appears.
EINECS Appears.

WHMIS Classification: Not regulated.

HMIS III Rating

Health: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability: 0 Minimal Hazard

Date: February 13., 2017

SDS: Concrobium House and Deck Wash

SAFETY DATA SHEET
Concrobium House and Deck Wash

Issuing Date: May 11, 2015

Revision Date: February 13 2017

Revision Number: 2

Physical: 0 Minimal Hazard

Personal Protection: B

SDS US (GHS HazCom 2012 and WHMIS 2015)

16. OTHER INFORMATION

Prepared By: Lizmar
32 Louisa Street
Toronto Ontario
M8V 2K6
416-436-5054

Issuing Date: May 11, 2015
Revision Date: February 13, 2017

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However we do not assume accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet



SAFETY DATA SHEET

1. Identification

Product identifier Brakleen® Brake Parts Cleaner

Other means of identification

Product code 05151

Recommended use Brake parts cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

24-Hour Emergency (CHEMTRAC) 800-424-9300 (US)
703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Compressed gas

Health hazards Serious eye damage/eye irritation Category 2
Reproductive toxicity (the unborn child) Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, repeated exposure Category 2

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs (liver, kidneys, brain, lungs) through prolonged or repeated exposure. Harmful to aquatic life.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not apply while equipment is energized. Pressurized container: Do not pierce or burn, even after use. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response	If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention.
Storage	Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	11.8% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures			
Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	80 - 90
Carbon dioxide		124-38-9	10 - 20
Toluene		108-88-3	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Many vapors are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Prevent product from entering drains. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not breathe mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. For product usage instructions, please see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits		
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)		
Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3 5000 ppm
US. OSHA Table Z-2 (29 CFR 1910.1000)		
Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling TWA	300 ppm 200 ppm
US. ACGIH Threshold Limit Values		
Components	Type	Value
Acetone (CAS 67-64-1)	STEL TWA	750 ppm 500 ppm

US. ACGIH Threshold Limit Values Components		Type	Value		
Carbon dioxide (CAS 124-38-9)		STEL	30000 ppm		
Toluene (CAS 108-88-3)		TWA	5000 ppm		
		TWA	20 ppm		
US. NIOSH: Pocket Guide to Chemical Hazards Components		Type	Value		
Acetone (CAS 67-64-1)		TWA	590 mg/m3 250 ppm		
Carbon dioxide (CAS 124-38-9)		STEL	54000 mg/m3		
		TWA	30000 ppm 9000 mg/m3 5000 ppm		
Toluene (CAS 108-88-3)		STEL	560 mg/m3 150 ppm		
		TWA	375 mg/m3 100 ppm		
Biological limit values					
ACGIH Biological Exposure Indices Components		Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)		50 mg/l	Acetone	Urine	*
Toluene (CAS 108-88-3)		0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
		0.03 mg/l	Toluene	Urine	*
		0.02 mg/l	Toluene	Blood	*
* - For sampling details, please see the source document.					
Exposure guidelines					
US - California OELs: Skin designation					
Toluene (CAS 108-88-3)		Can be absorbed through the skin.			
US - Minnesota Haz Subs: Skin designation applies					
Toluene (CAS 108-88-3)		Skin designation applies.			
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.				
Individual protection measures, such as personal protective equipment					
Eye/face protection	Wear safety glasses with side shields (or goggles).				
Skin protection					
Hand protection	Wear protective gloves such as: Nitrile. Neoprene. Polyvinyl alcohol (PVA).				
Other	Wear suitable protective clothing.				
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.				
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.				
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.				
9. Physical and chemical properties					
Appearance					
Physical state	Liquid.				
Form	Aerosol.				
Color	Clear, Colorless.				

Odor	Sweet.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-138.8 °F (-94.9 °C) estimated
Initial boiling point and boiling range	132.9 °F (56.1 °C) estimated
Flash point	< 0 °F (< -17.8 °C) Tag Closed Cup
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.2 % estimated
Flammability limit - upper (%)	12.8 % estimated
Vapor pressure	6962 hPa estimated
Vapor density	2 (air = 1)
Relative density	0.88 estimated
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	869 °F (465 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	88.2 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Aluminum.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure		
Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.	
Skin contact	Prolonged skin contact may cause temporary irritation.	
Eye contact	Causes serious eye irritation.	
Ingestion	Acetone poisoning may result in liver and kidney damage.	
Symptoms related to the physical, chemical and toxicological characteristics	Headache. May cause drowsiness and dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.	
Information on toxicological effects		
Acute toxicity	Narcotic effects.	
Product	Species	Test Results
Brakleen® Brake Parts Cleaner		
<u>Acute</u>		
Dermal		
LD50	Rabbit	22231 mg/kg estimated

Product	Species	Test Results
Inhalation LC50	Rat	33087 ppm, 4 hours estimated 82 mg/l, 4 Hours estimated
Oral LD50	Rat	6560 mg/kg estimated
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	Suspected of damaging the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure: Liver. Kidneys. Brain. Lungs.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.	

12. Ecological information

Product	Species	Test Results
Ecotoxicity Harmful to aquatic life.		
Brakleen® Brake Parts Cleaner		
Aquatic		
<i>Acute</i>		
Fish	LC50	7948.4028 mg/l, 96 hours estimated
Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Toluene (CAS 108-88-3)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon, silver salmon (Oncorhynchus kisutch) 8.11 mg/l, 96 hours
* Estimates for product may be based on additional component data not shown.		
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential		
Partition coefficient n-octanol / water (log Kow)		
Acetone		-0.24
Toluene		2.73
Stability in soil	No data available.	

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions N82
Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards No.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, LIMITED QUANTITY
Transport hazard class(es)
Class 2
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Toluene (CAS 108-88-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)

Listed.

Toluene (CAS 108-88-3)

Listed.

CERCLA Hazardous Substances: Reportable quantity

Acetone (CAS 67-64-1)

5000 LBS

Toluene (CAS 108-88-3)

1000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)

6532

Toluene (CAS 108-88-3)

6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)

35 %WV

Toluene (CAS 108-88-3)

35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)

6532

Toluene (CAS 108-88-3)

594

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - Yes

Pressure Hazard - Yes

Reactivity Hazard - No

SARA 302 Extremely hazardous substance

No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs. tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)

Toluene (CAS 108-88-3)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)

Carbon dioxide (CAS 124-38-9)

Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)

Carbon dioxide (CAS 124-38-9)

Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)

Toluene (CAS 108-88-3)

Carbon dioxide (CAS 124-38-9)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987
Cumene (CAS 98-82-8)	Listed: April 6, 2010
Ethanal (CAS 75-07-0)	Listed: April 1, 1988
Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997
Toluene (CAS 108-88-3)	Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009
------------------------	------------------------

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997
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Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 2.7 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a Brake Cleaner. This product is compliant for use in all 50 states. This product also complies with South Coast Air Quality Management District Rule 1171.

VOC content (CA) 2.7 %

VOC content (OTC) 2.7 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

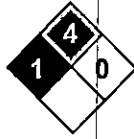
16. Other information, including date of preparation or last revision

Issue date	05-26-2015
Prepared by	Allison Cho
Version #	01
Further information	CRC # 668A
HMIS® ratings	Health: 1* Flammability: 4 Physical hazard: 0 Personal protection: B

NFPA ratings

Health: 1
Flammability: 4
Instability: 0

NFPA ratings



Disclaimer

The information contained in this document applies to this specific material, as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.

CTI

Chemical Technology Inc.

901

Adhesives/Coatings

13271 Mt. Elliott • Detroit, MI 48212 • (313) 893-4930 Fax (313) 891-0014

DICOR PART NUMBER 901BA

CTI-1636

DESCRIPTION:

CTI-1636 is a water based pressure sensitive adhesive with high tack and peel values.

SPECIFICATION DATA:

Base:	Acrylic
Color:	White
Solids:	51-55%
Viscosity:	8,000 - 12,000 cps, Brookfield RVF Spindle #4, speed 10 RPM @ 77°F
Wt/gal:	8.2 - 8.6
pH:	6.5 - 8.5
Freezing Sensitivity:	Do not freeze

APPLICATION:

CTI-1636 can be applied by roll, brush, or spray methods.

SURFACE PREPARATION:

Be certain that surfaces are clean, dry and free from dirt, oil, dust, etc.

CLEAN UP:

Water, if wet. If dry, mineral spirits can be used.

STORAGE CONDITIONS:

Product should be used within 90 days from date of manufacture. This material should be stored between 60°F and 90°F.

Information presented herein, while not guaranteed, is to the best of our knowledge true and accurate. NO WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED. ADE regarding the performance or stability of any product, since the manner of use and conditions of storage and handling are beyond our control. Users of this information should make an independent determination of suitability and use of the product described, including evaluation of properties of product and precautionary measures in order to insure proper use of products described and the health and safety of all persons and property. No suggestion for product use, nor anything contained herein shall be construed as a recommendation of its use in infringement of any existing patent.

Material Safety Data Sheet

This material safety data sheet complies with OSHA's Hazard Communication Standard, 29CFR 1910.1200. If any items not applicable, or no information is available, the space is marked to indicate that.

IDENTITY I (As Used On Label And List) CTI-1636

SECTION I

Manufacturer's Name: Chemical Technology Inc.

Address: 13271 Mt. Elliott Detroit, MI 48212

Emergency Telephone Number: 313 893-4930

Telephone Number for Information: 313 893-4930

Date Prepared: 10/4/95

Product Class: Acrylic

Signature of Preparer (optional):

SECTION II - HAZARDOUS INGREDIENTS

Hazardous components
(Specific Chemical Identity/

INGREDIENT	PERCENT	OCCUPATIONAL EXPOSURE LIMITS	VAPOR PRESSURE	TOXICITY INFORMATION
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This product contains no hazardous ingredients.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 212°F

Percent Volatile: 44%

Weight per gal: 8.2#

Vapor Density: Heavier

Evaporation Rate:

Appearance and Odor: N/A

- Slower, than ether
- Faster

NI = No Information
NA = Not Applicable

SECTION VI - FIRE AND EXPLOSION HAZARD DATA

Flammability Classification: None Flammable

Storage Category: N/A

Flash Point (Method Used): None to 212°F Pinsky Martens

Explosive Limits: N/A

Extinguishing Media: Use media suited

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: Closed container may explode when exposed to extreme heat.

SECTION V - REACTIVITY DATA

Stability - Unstable:

Stable:

Conditions to Avoid: Protect from freezing.

Incompatibility (Materials to Avoid): Strong Oxidizing Agents.

Hazardous Decomposition or By products: CO2

Hazardous Polymerization - May Occur:
Will not Occur:

Conditions to Avoid: Excessive heat.

SECTION VI - HEALTH HAZARD DATA

Health Hazards (acute): Inhalation, Skin contact, Eye contact TLV 25 ppm

Health Hazards (chronic): None recognized. Under normal conditions of use in well ventilated areas, the concentration of vinyl acetate in the work place arising from the residual monomer in these polymer emulsions will not exceed the TLV.

Signs and Symptoms of Overexposure:

Eyes - Primary Irritation.

Skin - Possible primary irritation.

Inhalation - May cause headache and nausea.

Emergency and First Aid Procedures: *Consult a Physician for Medical Treatment.*

Skin - Wash with mild soap and water.

Eyes - Flush with water. to dilute.

Ingested - Drink one to two glasses of water to dilute.

Inhaled - Remove to fresh air. Treat symptomatically.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled: Shovel excess waste container. Residue may be removed while fresh with water. After drying, the residue may be cleaned with Xylene or Triethane. Fresh material is very slippery.

Waste Disposal Method: According to Federal, State and Local codes.

SECTION VIII - SPECIAL PRECAUTIONS

Precautions to be taken in transportation, handling, storing: Protect from freezing. Do not store above 120°F.

Other Precautions: Do not take internally. Avoid prolonged contact with skin.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory protection (Specify Type): N/A

Ventilation: Sufficient ventilation in volume and pattern should be provided to keep air contaminant concentration below current applicable OSHA safety and health requirements.

Protective Gloves: Yes-- Should be worn to prevent skin contact.

Eye Protection: Yes-- Safety glasses, goggles or shield should be worn.



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

Product Use: Starting Fluid

Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca
1-905-670-2291

In Mexico:

CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonia Orquídea
San Luis Potosí, SLP CP 78394
www.crc-mexico.com
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Extremely Flammable. Harmful or Fatal if Swallowed. Vapor Harmful. Contents Under Pressure. As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Appearance & Odor: Clear liquid, ether odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: May cause moderate eye irritation and moderate corneal injury.

SKIN: Prolonged contact may cause irritation, defatting of the skin.

INHALATION: May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INGESTION: If aspirated into lungs, it may be rapidly absorbed through the lungs and result in injury to other body systems; gastro-intestinal distress.

CHRONIC EFFECTS: Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TARGET ORGANS: Nervous system

Medical Conditions Aggravated by Exposure: Unknown

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Diethyl ether	60-29-7	20 – 25
Heptane	142-82-5	75 – 80
Carbon dioxide	124-38-9	< 10
Upper cylinder lubricant	64741-89-5	< 1

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do NOT induce vomiting. Call a physician immediately.

Note to Physicians: Aspiration hazard. Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6)).

Flash Point: < 20°F (TCC) Upper Explosive Limit: 48.0
Autoignition Temperature: ND Lower Explosive Limit: 1.2

Fire and Explosion Data:

Suitable Extinguishing Media: Carbon dioxide, foam, dry chemical, Class B extinguishers

Products of Combustion: Oxides of carbon

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors may accumulate in a confined space and create a flammable atmosphere.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use near open flames, heat or any sources of ignition. Vapors are heavier than air and will collect in low areas. Use proper ventilation that will remove vapors from low areas. Avoid prolonged or repeated contact with skin. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing. Do not store near sources of ignition.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Diethyl ether	400	NE	400	500	NE		ppm
Heptane	500	NE	400	500	NE		ppm
Carbon dioxide	5000	NE	5000	30000	NE		ppm
Upper cylinder lubricant	NE	NE	NE	NE	NE		

N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile or neoprene. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid

Product Name: Jump Start® Starting Fluid with Lubricity**Product Number (s): 05671, 75671**

Color: clear, colorless
 Odor: ether
 Odor Threshold: ND
 Specific Gravity: 0.7
 Initial Boiling Point: 95°F
 Freezing Point: ND
 Vapor Pressure: ND
 Vapor Density: > 1 (air = 1)
 Evaporation Rate: fast
 Solubility: slight in water
 Coefficient of water/oil distribution: ND
 pH: NA
 Volatile Organic Compounds: wt %: 97.0 g/L: 679 lbs./gal: 5.66

Section 10: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: Sources of ignition; excessive heat
 Incompatible Materials: Strong oxidizers; amines; nitric plus acetic acids; nitric plus sulfuric acid
 Hazardous Decomposition Products: Oxides of carbon
 Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
Diethyl ether	1215 mg/kg	> 20 mL/kg	No data
Heptane	No data	No data	103 g/m ³ /4H
Carbon dioxide	No data	No data	470,000 ppm/30M
Upper cylinder lubricant	> 15 mg/kg	> 5 mg/kg	No data

Chronic Toxicity:

Component	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen	Irritant	Sensitizer
Diethyl ether	No	No	No	Unknown	Unknown
Heptane	No	No	No	E (mild) / S (moderate) / R (mild)	No
Carbon dioxide	No	No	No	No	Unknown
Upper cylinder lubricant	No	No	No	Unknown	Unknown

E – Eye	S – Skin	R – Respiratory
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Reproductive Toxicity: No information available
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: Heptane – 24 Hr EC50 Daphnia magna: > 10 mg/L
Persistence / Degradability: No information available
Bioaccumulation / Accumulation: No information available
Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. Pressurized containers are a D003 reactive waste. (See 40 CFR Part 261.20 – 261.33)
Empty aerosol containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): Consumer Commodity, ORM-D
ICAO/IATA (air): Aerosols, flammable (engine starting fluid), UN 1950, 2.1
IMO/IMDG (water): Aerosols, UN 1950, 2, Limited Quantity
Special Provisions: IATA: Forbidden on passenger aircraft

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: diethyl ether (100 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:

Fire Hazard	Yes
Reactive Hazard	No
Release of Pressure	Yes
Acute Health Hazard	Yes
Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

1986 and 40 CFR Part 372:

None

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:

New Jersey: 60-29-7, 142-82-5

Pennsylvania: 60-29-7, 142-82-5

Massachusetts: 60-29-7, 142-82-5

Rhode Island : 60-29-7, 142-82-5

Canadian Regulations:

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

WHMIS Hazard Class: A, B5, D2B

European Union Regulations:

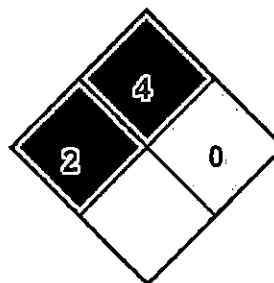
RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

Section 16: Other Information

HMIS® (II)	
Health:	2
Flammability:	4
Reactivity:	0
PPE:	B

NFPA



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
CRC #: 05671
Revision Date: 02/01/2010

Changes since last revision: Section 14: IATA Shipping Information revised

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries'

Product Name: Jump Start® Starting Fluid with Lubricity

Product Number (s): 05671, 75671

knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substance List
g/L: grams per Liter
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
lbs./gal: pounds per gallon
LC: Lethal Concentration
LD: Lethal Dose

NA: Not Applicable
ND: Not Determined
NIOSH: National Institute of Occupational Safety & Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
ppm: Parts per Million
RoHS: Restriction of Hazardous Substances
STEL: Short Term Exposure Limit
TCC: Tag Closed Cup
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Information System

MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Marine Fuel Stabilizer (Gasoline Formula)
Product Number (s): 06161, 06162, 06163, 06164

Manufactured By: CRC Industries, Inc. (215) 674-4300
885 Louis Drive, Warminster, PA 18974
24-Hour Emergency Information: CHEMTREC (800) 424-9300

Section 2: Composition/Information on Ingredients

Component	CAS NUMBER	ACGIH TLV	OSHA PEL	OTHER LIMITS	%
Petroleum Distillate	64742-53-6	NE	400 ppm	100 ppm	> 90
Chemical Additives	Mixture	NE	NE	NE	< 10

Section 3: Hazards Identification

Emergency Overview

Appearance & Odor: Amber liquid, faint petroleum odor.

Avoid continuous breathing of vapor & spray mists. Avoid contact with skin & eyes.

Potential Health Effects:

Inhalation: NA

Eyes: Irritation

Skin: Irritation

Ingestion: Exposure to oil mists or to fumes, which may be generated at high temperatures, may irritate the nose, throat and upper respiratory tract.

Carcinogenicity: OSHA: No IARC: No NTP: No

Chronic Overexposure: NA

Medical Conditions Aggravated by Exposure: Pre-existing skin and pre-respiratory conditions.

Section 4: First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if necessary.

Eyes: Flush with large amounts of water for 15 minutes.

Skin: Remove contaminated clothing and wash area with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Product Name: Marine Fuel Stabilizer (Gasoline Formula)

Product Number (s): 06161, 06162, 06163, 06164

Section 5: Fire-Fighting Measures

Flashpoint: >315°F Method: TCC LEL: ND UEL: ND
Extinguishing Media: CO₂, dry chemical and foam
Hazardous Combustion Products: CO₂ and carbon monoxide
Fire-fighting Instructions: Remove containers from fire area if possible. Use self-contained breathing apparatus for fire fighting.
NFPA: Health: 1 Flammability: 1 Reactivity: 0
HMIS: Health: 1 Flammability: 1 Reactivity: 0 PPE: B

Section 6: Accidental Release Measures

Spill/Leak Procedures: Area should be ventilated. Absorbent should be used to pick up excess material. All used and unused product should be disposed of in accordance with federal, state and local regulations.

Section 7: Handling and Storage

Handling Procedures: Store in a cool, dry area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Adequate to prevent accumulation of vapors. Use mechanical means if necessary to maintain levels below the exposure limits. If working in a confined space, follow applicable OSHA regulations.

Respiratory: Use NIOSH/MSHA compliant respirators or self-contained breathing apparatus above exposure limits. Follow OSHA regulations 29 CFR 1910.134.

Protective Clothing/Equipment: Wear chemically protective gloves and safety glasses. Use a splash apron and boots if splashing occurs.

Section 9: Physical & Chemical Properties

Physical State: Liquid Appearance & Odor: Amber liquid, faint petroleum odor
Specific Gravity: 0.9016 Boiling Point: >465°F
Freezing Point: ND Vapor Pressure: Neg.
Evaporation Rate: Neg. Vapor Density (air = 1) > air
pH: NA Solubility: Negligible in water
Volatile Organic Compounds %: 1.625 g/L: 14.6 lbs./gal: 0.12

Section 10: Stability and Reactivity

Stability: Stable Hazardous Polymerization: No
Chemical Incompatibilities: Strong oxidizers.
Materials to Avoid: Strong oxidizing agents.
Hazardous Decomposition Products: None

Product Name: Marine Fuel Stabilizer (Gasoline Formula)

Product Number (s): 06161, 06162, 06163, 06164

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. See Section 3 of this MSDS for acute symptoms of overexposure and carcinogenicity information.

Section 12: Ecological Information

Ecotoxicity: No data available.
Environmental Fate: No data available for biodegradation.

Section 13: Disposal Considerations

Disposal: This material if discarded may be hazardous waste under U.S. EPA RCRA regulations. All disposal activities must comply with federal, state and local regulations. Contact your local or state environmental agency for specific rules. Do not dump into sewers, on the ground or into any body of water.

Section 14: Transportation Information

Shipping Name: Not Regulated
Hazard Class: NA UN Number: NA Packing Group: NA
Label: NA Placard: NA
Special Provisions: NA

Section 15: Regulatory Information

SCA: All components are either listed under TSCA or are exempt.
SARA Title III: Section 311/312: NA Section 313*: None
CERCLA/Superfund (RQ): NA
Extremely Hazardous Substances: No
California Prop 65: This product contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

* See section 2 for percentage

Section 16: Additional Information

Prepared By: Michelle Milburn Date: July 9, 2003
Technical Information: (800) 521-3168 CRC #: 587C

This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
LEL:	Lower Explosive Limit	g/L:	grams per Liter
UEL:	Upper Explosive Limit	lbs./gal:	pounds per gallon
PPE:	Personal Protection Equipment	RQ:	Reportable Quantity
CC:	Cleveland Closed Cup		

MATERIAL SAFETY DATA SHEET
TST Grey Water Odor Control

Page: 1

PRODUCT NAME: TST Grey Water Odor Control
HMIS CODES: H F R P PRODUCT CODE: 40250, 40252
 1 1 0 A

=====**SECTION I - MANUFACTURER IDENTIFICATION**=====

MANUFACTURER'S NAME: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
 Greensboro, NC 27409

EMERGENCY PHONE : 336-668-7661 DATE REVISED : 02/17/01
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : CAMCO MANUFACTURING, INC. 1-800-334-2004

=====**SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION**=====

REPORTABLE COMPONENTS	CAS NUMBER	WEIGHT PERCENT
LINEAR PRIMARY ALCOHOL ETHOXYLATE	68439-46-3	1-5
TETRA SODIUM SALT OF ETHYLENEDIAMINETETRAACETIC ACID	064-02-8	1-5
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	68424-85-1	1-5

=====**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**=====

BOILING RANGE: NOT DETERMINED SPECIFIC GRAVITY (H2O=1): 1.023 @70°F
VAPOR DENSITY: NOT DETERMINED EVAPORATION RATE: N/A
SOLUBILITY IN WATER: COMPLETELY
APPEARANCE AND ODOR: CLEAR YELLOW COLORED LIQUID, LEMON
ODOR

=====**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**=====

FLASH POINT: n/a METHOD USED: n/a
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: n/a UPPER: n/a
EXTINGUISHING MEDIA: NON-FLAMMABLE. USE EXTINGUISHER
APPROPRIATE FOR SURROUNDING FIRE. WATER, FOG
OR DRY CHEMICAL.
SPECIAL FIREFIGHTING PROCEDURES: Use self-contained breathing
apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

=====**SECTION V - REACTIVITY DATA**=====

STABILITY: Stable
CONDITIONS TO AVOID: Excessive temperatures and strong oxidizers.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: May form Carbon Dioxide,
Carbon Monoxide and oxides of Nitrogen.
HAZARDOUS POLYMERIZATION: Will not occur.

=====
SECTION VI - HEALTH HAZARD DATA
=====

INHALATION: May irritate the nose.
EYE CONTACT: May irritate the eyes if contact with material occurs.
SKIN CONTACT: Frequent or prolonged contact may cause skin irritation.
INGESTION Swallowing large amounts may cause nausea and vomiting and may be harmful.
HEALTH HAZARDS (ACUTE AND CHRONIC): None known.

CARCINOGENICITY: No. NTP CARCINOGEN: No
IARC MONOGRAPHS: No OSHA REGULATED: No

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If breathing is difficult, get medical attention.
EYE CONTACT: Flush with large quantities of water for 15 minutes and seek medical attention.
SKIN CONTACT: Immediately flush with large quantities of water. Remove contaminated clothing and launder before reuse. Get medical attention for irritation or any other symptom.
INGESTION: Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Call physician.

=====
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE
=====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Absorb liquid with inert solids and shovel into containers suitable for transport and disposal. If necessary, dike spill and prevent material from entering sanitary sewers or natural water reservoirs.
WASTE DISPOSAL METHOD: Dispose in accordance with federal, state and local regulations.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool, dry, well ventilated area.
OTHER PRECAUTIONS: Store in closed containers in a cool, dry, well ventilated area away from heat and strong oxidizers.

=====
SECTION VIII - CONTROL MEASURES
=====

RESPIRATORY PROTECTION: Use approved NIOSH respirator when TLV is exceeded.
VENTILATION: General ventilation is sufficient.
PROTECTIVE GLOVES: Impermeable chemical handling gloves for skin protection.
EYE PROTECTION: Use chemical safety glasses, or goggles for eye protection.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Long sleeves and apron is recommended.
WORK/HYGIENIC PRACTICES: Use general safety precautions when handling this material.

=====
SECTION IX - DISCLAIMER
=====

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of his own use, handling and disposal of this product.

MATERIAL SAFETY DATA SHEET

TST Tabs

Page 1 of 4

PRODUCT NAME: TST Tabs
NFPA CODES: HFR
210
PRODUCT CODE: 41152

===== SECTION I - MANUFACTURER IDENTIFICATION =====

MANUFACTURER'S NAME: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
Greensboro, NC 27409

EMERGENCY PHONE: 336-668-7661 **DATE REVISED:** 10/29/2002
INFORMATION PHONE: 336-668-7661
NAME OF PREPARER: CAMCO MANUFACTURING INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004

===== SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION =====

REPORTABLE COMPONENTS	CAS NUMBER	WEIGHT PERCENT
Tetradecyl Dimethyl Benzyl Ammonium Chloride 99%		139-08-2

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING RANGE: Not Determined
VAPOR DENSITY: N/A
SOLUBILITY IN WATER: 20%
APPEARANCE AND ODOR: White crystalline tablet without odor
SPECIFIC GRAVITY (H2O=1): Not Determined
EVAPORATION RATE: N/A

MATERIAL SAFETY DATA SHEET

TST Tabs

Page 2 of 4

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: Not Determined

METHOD USED:

FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER: Not Determined UPPER: Not Determined

EXTINGUISHING MEDIA: Water Spray, Dry Chemical, Carbon Dioxide or Foam

SPECIAL FIREFIGHTING PROCEDURES: Wear positive pressure breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: As with other organic materials, dusty conditions may present a dust explosion hazard.

===== SECTION V - REACTIVITY DATA =====

STABILITY: Stable at ambient temperatures

INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizers

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Thermal decomposition may produce carbon monoxide and/or carbon dioxide of nitrogen and other decomposition products.

HAZARDOUS POLYMERIZATION: Will not occur.

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

INHALATION: Dust may cause irritation of the respiratory tract.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

EYE CONTACT: Overexposure may cause eye irritation.

SKIN CONTACT: Overexposure may cause skin irritation.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Can be fatal if swallowed.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Effects of Overexposure:

MATERIAL SAFETY DATA SHEET

TST Tabs

Page 3 of 4

Accute: May cause severe skin and eye irritation. Will irritate respiratory tract if inhaled.

Chronic: No applicable information found.

CARCINOGENICITY: NTP
OSHA REGULATED: No

CARCINOGEN: No

IARC MONOGRAPHS: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: No applicable information found.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If breathing is difficult, give oxygen provided a qualified operator is available. Get medical attention.

EYE CONTACT: Flush with large quantities of water for 15 minutes and seek medical attention.

SKIN: Remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Launder clothing before reuse.

INGESTION: If person is conscious, give large quantity of milk, egg whites or gelatin, or if these are not available, give water. Never administer liquids by mouth to an unconscious person. Call a physician immediately.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep or shovel spill into a container for disposal.

WASTE DISPOSAL METHOD: Dispose in accordance with federal, state and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its use. Wash contaminated clothing before reuse.

OTHER PRECAUTIONS: Product is toxic to fish. Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

===== SECTION VIII - CONTROL MEASURES =====

MATERIAL SAFETY DATA SHEET

TST Tabs

Page 4 of 4

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved dust respirator or dust mask.

VENTILATION: Use local ventilation to control dust.

PROTECTIVE GLOVES: Wear impermeable gloves.

EYE PROTECTION: Use safety glasses, goggles or face shields for eye protection.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Long sleeves shirt is recommended to prevent skin contact.

WORK/HYGIENIC PRACTICES: Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use only with adequate ventilation. Wash thoroughly after handling product.

===== **SECTION IX - DISCLAIMER** =====

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SAFETY DATA SHEET

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Pro-Strength Trailer Glitter

Section 1- Chemical Product and Company Identification

Product Name: Pro-Strength Trailer Glitter RV Wash

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Clean Agent

Product Code: 40603 (32 oz) and 40608 (Gallon)

Date of Preparation/Revision: December 12, 2014

In case of Emergency: 1-800-535-5053

Section 2- Hazards identification

Physical State: Liquid. [CLEAR, PALE YELLOW, LIQUID WITH CHARACTERISTIC SWEET ODOR]



Irritant

WARNING

GHS Classifications

Eye Damage / Irritation (Category 2B)

Acute Toxicity - Inhalation (Category 4)

Skin Damage / Irritation (Category 3)

Acute Oral Toxicity (Category 4)

Hazard Statements

H302 Harmful if swallowed

H316 Causes mild skin irritation

H320 Causes eye irritation

H332 Harmful if inhaled

Precautionary statements

P102 Keep out of reach of children

P233 Keep container tightly closed

P260 Do not breathe dust/fumes/gas/mist/vapors/spray

P264 Wash thoroughly after handling

P270 Do not eat, drink or smoke when using this product

Response statements

P330 Rinse mouth

P331 Do Not induce vomiting

P301 + P312 IF SWALLOWED: Call a Poison Center or Doctor/Physician if you feel unwell

P304 + P340 + P313 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SAFETY DATA SHEET

2 of 7

Pro-Strength Trailer Glitter

P337 + P313 If eye irritation persist get medical attention
P332 + P313 If skin irritation persist get medical attention
P321 Specific treatment (see First Aid Measures on Safety Data Sheet)

Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations

WARNING! This product may be harmful or fatal if swallowed. This product is irritating to the eyes, respiratory system and skin. This product is an aqueous solution which will not burn. Irritating and toxic fumes and gases may be released upon thermal processing or during combustion.

Potential Health Effects: Eyes

Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe over exposure can result in swelling of the conjunctiva along with tissue damage which may lead to blindness.

Potential Health Effects: Skin

This product is irritating to the skin. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, and possible tissue damage. Repeated contact with this material may produce dermatitis.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. If ingested, this product will immediately cause burns to the mouth, throat, esophagus and possibly the digestive tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Inhalation of vapors or mists of the product can cause sneezing, coughing and difficulty breathing.

Medical Conditions Aggravated by Exposure

Pre-existing skin and eye conditions.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

See toxicological information (section 11)

Section 3 - Composition, Information on Ingredients

<u>Name</u>	<u>CAS Number</u>	<u>% Volume</u>
Sodium Dodecylbenzene Sulfonate	25155-30-0	8 -10%
Sodium Xylenesulphonate	1300-72-2	4 - 5%
Sodium Carbonate	497-19-8	1 - 3%
Sodium Laureth Sulfate	68585-34-2	1 - 3%

Component Information/Information on Non-Hazardous Components

This product is considered to be non-hazardous under 29 CFR 1910.1200

Section 4 - First Aid Measures

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SAFETY DATA SHEET

3 of 7

Pro-Strength Trailer Glitter

- Eye contact** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
- Skin contact** For skin contact, wash immediately with soap and water. If irritation persists get medical attention.
- Ingestion** If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.
- Inhalation** If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If irritation persists get medical attention.
- Notes to Physician** Provide general supportive measures and treat symptomatically.

Section 5 - Fire-Fighting Measures

FLASH POINT: >210° F (100° C)

METHOD USED: PMCC

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A **UPPER:** N/A

General Fire Hazards

This product is an aqueous solution which will not burn. Non-Flammable

Hazardous Combustion Products

Decomposition may yield carbon dioxide compounds and oxides of nitrogen.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other: none

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental release measures

Containment Procedures

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.

Clean-Up Procedures

Absorb spill with inert material such as: lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

Section 7- Handling and Storage

Handling Procedures

Open container carefully, as needed to relieve any build up of pressure. Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Use this product with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

SAFETY DATA SHEET

4 of 7

Pro-Strength Trailer Glitter

Store in a cool, dry area. Do not freeze. Store away from direct sunlight and any sources of heat. Empty product containers may contain product residue. Do not reuse empty containers. Do not store this material in open or unlabeled containers.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles and face shield.

Personal Protective Equipment: Skin

Wear impervious (neoprene) gloves, impervious apron.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

Section 9 - Physical and Chemical Properties

Appearance:	Light Straw Translucent Liquid
Odor:	Fresh Fragrance
Physical State:	Liquid
pH: (@59° F / 15° C)	8.0 to 9.5
Freeze Point:	32° F (0° C)
Vapor pressure:	Not Applicable
Vapor density:	Not Applicable
Boiling Point:	>212°F (>100° C)
Melting Point:	Not Determined
Solubility:	Completely
Specific Gravity: (@70° F / 21° C)	1.018
Flash Point (PMCC):	>210° F (100° C)
Auto-ignition Temperature:	Not Determine
Flammable Limits in Air by Volume:	Not Applicable
Evaporation Rate:	Similar to Water
Decomposition Temperature:	Not Available
Viscosity (cps):	< 200 cps
VOC (%):	< 2% by weight

SAFETY DATA SHEET

5 of 7

Pro-Strength Trailer Glitter

Physical Properties: Additional Information

No additional information available

Section 10 - Stability and Reactivity

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid contact with extreme heat and incompatible materials.

Incompatibility

This product is incompatible with strong oxidizing agents.

Hazardous Decomposition

Decomposition may yield carbon dioxide, carbon monoxide and oxides of nitrogen.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute and Chronic Toxicity

General Product Information

No information available for the product.

This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Chronic Toxicity

No information available for the product.

Epidemiology

No epidemiological data is available for this product.

Neurotoxicity

No data available for this product.

Mutagenicity

No data available for this product.

Teratogenicity

No data available for this product.

Other Toxicological Information

No additional information available.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No data available for this product.

SAFETY DATA SHEET

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Pro-Strength Trailer Glitter

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport information

US DOT Information

This material is not hazardous as defined by 49CFR 172.101 by the US Department of Transportation.

IMDG

Refer to Current IMDG regulations for full shipping description requirements

IATA

This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation

Section 15 - Regulatory Information

U.S. Federal regulations

General Product Information

Product is biodegradable. No additional information available.

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

Connecticut Carcinogen Reporting: This material is not listed.

Connecticut Hazardous Material Survey: This material is not listed.

Florida substances: This material is not listed.

Illinois Chemical Safety Act: This material is not listed.

Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.

Louisiana Reporting: This material is not listed.

Louisiana Spill: This material is not listed.

Massachusetts Spill: This material is not listed.

SAFETY DATA SHEET

7 of 7

Pro-Strength Trailer Glitter

Massachusetts Substances: This material is listed.

Michigan Critical Material: This material is not listed.

Minnesota Hazardous Substances: This material is not listed.

New Jersey Hazardous Substances: This material is listed.

New Jersey Spill: This material is not listed.

New Jersey Toxic Catastrophe Prevention Act: This material is not listed.

New York Acutely Hazardous Substances: This material is not listed.

New York Toxic Chemical Release Reporting: This material is not listed.

Pennsylvania RTK Hazardous Substances: This material is listed.

Rhode Island Hazardous Substances: This material is not listed.

California Prop 65 Warning: This material is not listed.

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

Section 16 - Other information

NFPA CODES: Health	1
Flammability	1
Reactivity	0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

Date of Preparation/Revision: December 12, 2014 (Supersedes all previous SDS)

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MATERIAL SAFETY DATA SHEET
AWNING CLEANER

Page: 1

PRODUCT NAME: AWNING CLEANER
HMIS CODES: H F R P
1 0 1 B

PRODUCT CODE: 41020, 41022,
41027

===== **SECTION I - MANUFACTURER IDENTIFICATION** =====

MANUFACTURER'S NAME: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
Greensboro, NC 27409

EMERGENCY PHONE : 336-668-7661 **DATE REVISED :** 02/23/01
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : CAMCO MANUFACTURING, INC. 1-800-334-2004

==== **SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION** =====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
LINEAR PRIMARY ALCOHOL ETHOXYLATE	68439-46-3	<0.1@100°F	1-10
SODIUM METASILICATE	6834-92-0	N/A	1-5
COCO AMINE OXIDE	68155-09-9	N/A	1-5
TETRA SODIUM SALT OF ETHYLENEDIAMINETETRAACETIC ACID	064-02-8	N/A	1-5

===== **SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS** =====

BOILING RANGE: NOT DETERMINED **SPECIFIC GRAVITY (H2O=1):** 1.022 @70°F
VAPOR DENSITY: NOT DETERMINED **EVAPORATION RATE:** N/A
SOLUBILITY IN WATER: Soluble
APPEARANCE AND ODOR: CLEAR LIGHT STRAW COLORED LIQUID, FRESH
ODOR

===== **SECTION IV - FIRE AND EXPLOSION HAZARD DATA** =====

FLASH POINT: n/a **METHOD USED:** n/a
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: n/a **UPPER:** n/a
EXTINGUISHING MEDIA: NON-FLAMMABLE. USE EXTINGUISHER
APPROPRIATE FOR SURROUNDING FIRE. WATER, FOG
OR DRY CHEMICAL.
SPECIAL FIREFIGHTING PROCEDURES: Use self-contained breathing
apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

===== **SECTION V - REACTIVITY DATA** =====

STABILITY: Stable
CONDITIONS TO AVOID: Excessive temperatures and strong oxidizers.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: May form Carbon Dioxide,
Carbon Monoxide and oxides of Nitrogen.
HAZARDOUS POLYMERIZATION: Will not occur.

===== **SECTION VI - HEALTH HAZARD DATA** =====

INHALATION: May irritate the nose.
EYE CONTACT: May irritate the eyes if contact with material occurs.
SKIN CONTACT: Frequent or prolonged contact may cause skin irritation.
INGESTION Swallowing large amounts may cause nausea and vomiting and may be harmful.
HEALTH HAZARDS (ACUTE AND CHRONIC): None known.

CARCINOGENICITY: No. NTP CARCINOGEN: No
IARC MONOGRAPHS: No OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
None known

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If breathing is difficult, get medical attention.

EYE CONTACT: Flush with large quantities of water for 15 minutes and seek medical attention.

SKIN CONTACT: Immediately flush with large quantities of water for at least 15 minutes. Remove contaminated clothing and launder before reuse. Get medical attention for irritation or any other symptom.

INGESTION: Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Call physician.

CAUTION: Do not induce vomiting or give water to anyone who is having trouble breathing, is unconscious, or having convulsions.

==== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Absorb liquid with inert solids and shovel into containers suitable for transport and disposal. If necessary, dike spill and prevent material from entering sanitary sewers or natural water reservoirs.

WASTE DISPOSAL METHOD: Dispose in accordance with federal, state and local regulations.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool, dry, well ventilated area.

OTHER PRECAUTIONS: Store in closed containers in a cool, dry, well ventilated area away from heat and strong oxidizers.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION: Use approved NIOSH respirator when TLV is exceeded.

VENTILATION: General ventilation is sufficient.

PROTECTIVE GLOVES: Impermeable chemical handling gloves for skin protection.

EYE PROTECTION: Use chemical safety glasses, or goggles for eye protection.

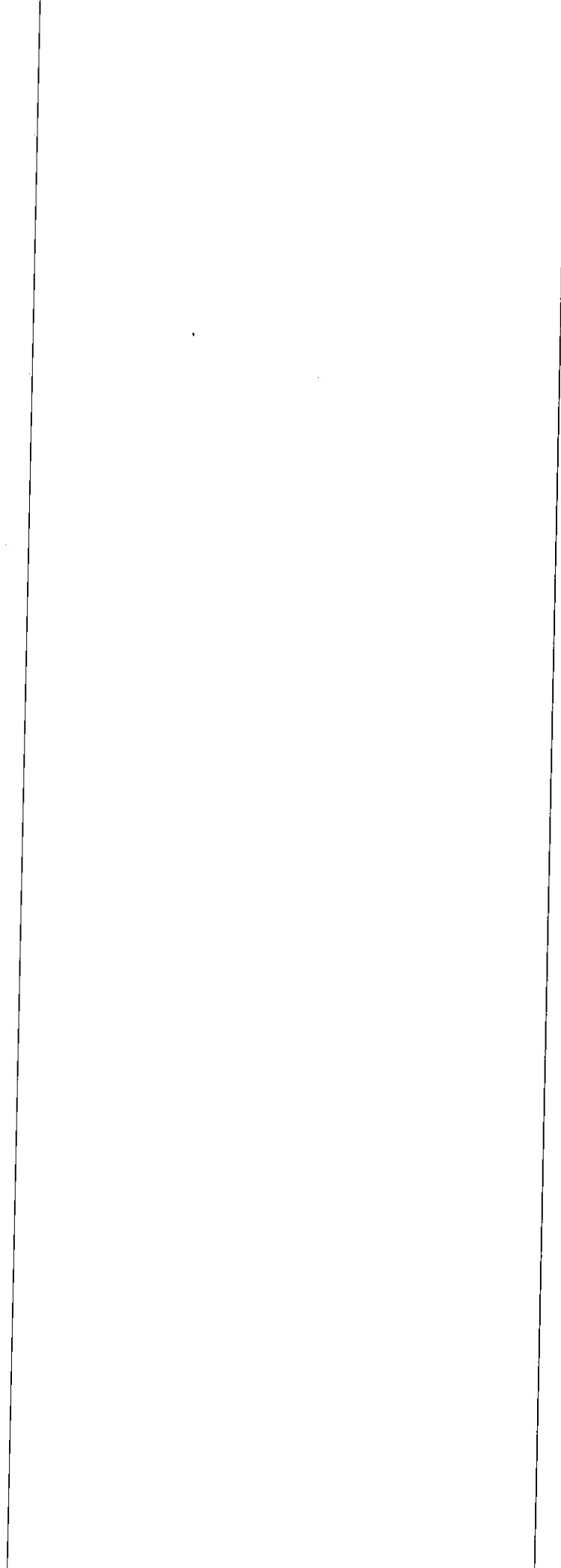
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Long sleeves and apron is recommended.

WORK/HYGIENIC PRACTICES: Use general safety precautions when handling this material.

===== SECTION IX - DISCLAIMER =====

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MATERIAL SAFETY DATA SHEET
SLIDE OUT LUBE Page: 1

PRODUCT NAME: SLIDE OUT LUBE
HMIS CODES: H F R P
2 3 0 B

PRODUCT CODE: 41105

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURED FOR: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
Greensboro, NC 27409

EMERGENCY PHONE : 336-668-7661 DATE REVISED : 02/26/01
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : CAMCO MANUFACTURING, INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS	CAS NUMBER	OSHA PEL (ppm)	ACGIH TLV (ppm)	SARA III LIST
Aliphatic petroleum disstillate	8052-41-3	100	100	No
2-Butoxyethanol	111-76-2	50	25	No
Petroleum Distillate	64742-53-6	5mg/m3	5mg/m3	No
Isobutane / Propane blend	75-98-6	800	800	No
	74-98-6	1000	1000	No

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: N/A SPECIFIC GRAVITY (H2O=1): 0.832
VAPOR PRESSURE: PSIG @ 70°F (Aerosols): Max. 60
VAPOR DENSITY: N/A EVAPORATION RATE: N/E
SOLUBILITY IN WATER: Insoluble
APPEARANCE AND ODOR: Light straw spray with aliphatic solvent odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY as per USA FLAME PROJECTION TEST: (aerosols) Extremely Flammable.
FLASH POINT (non aerosols): N/A METHOD USED: N/A
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/E UPPER: N/E
EXTINGUISHING MEDIA: Foam, Alcohol foam, CO2, Dry chemical, water fog, other.
SPECIAL FIREFIGHTING PROCEDURES: Use self contained breathing apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not expose aerosols to temperatures of over 130°F or the container may rupture.

SECTION V - REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: Open flame, welding arcs, heat, sparks.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizers
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide, carbon dioxide, and various hydrocarbons.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH HAZARD DATA

INHALATION: Excessive inhalation of vapors can be harmful and may cause headache, dizziness, asphyxia, anesthetic effects and possible unconsciousness.
EYE CONTACT: Mild irritation.
SKIN CONTACT: Mild irritation due to defatting of skin.

MATERIAL SAFETY DATA SHEET
SLIDE OUT LUBE

Page: 2

INGESTION: Possible chemical pneumonitis if aspirated into lungs. Nausea.
HEALTH HAZARDS (ACUTE AND CHRONIC): (Effects due to excessive exposure to the raw materials of this mixture.) May cause elevated carboxyhemoglobin levels, eye damage, lung damage.
CARCINOGENICITY: No. **NTP CARCINOGEN:** No
IARC MONOGRAPHS: No **OSHA REGULATED:** No
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: May aggravate existing eye, skin, or upper respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air, resuscitate if necessary. Get medical attention.

EYE CONTACT: Flush with water for at least 15 minutes. If irritated, seek medical attention.

SKIN CONTACT: Wash with soap and water. If irritated, seek medical attention. Remove contaminated clothing and launder before re-wearing.

INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.

===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spilled liquid with suitable medium. Incinerate or landfill according to local, state and federal regulations. Do not flush into sewers.

WASTE DISPOSAL METHOD: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Do not puncture or incinerate containers. Do not store at temperatures over 130°F.

OTHER PRECAUTIONS: Keep out of the reach of children. Avoid food contamination. Remove ignition sources.

===== SECTION VIII - CONTROL MEASURES =====

RESPIRATORY PROTECTION: If vapor concentration exceeds TLV, use respirator approved by NIOSH/MSHA for organic vapor.

VENTILATION: Adequate ventilation to keep vapor concentration below TLV.

PROTECTIVE GLOVES: Neoprene, if skin easily irritated.

EYE PROTECTION: Safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None.

WORK/HYGIENIC PRACTICES: Wash with soap and water before handling food. Remove contaminated clothing.

===== SECTION X - DISCLAIMER =====

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MATERIAL SAFETY DATA SHEET
SLIDE OUT RUBBER SEAL CONDITIONER

Page: 1

PRODUCT NAME: SLIDE OUT RUBBER SEAL CONDITIONER
HMIS CODES: H F R P
2 2 0 B
PRODUCT CODE: 41135

===== SECTION I - MANUFACTURER IDENTIFICATION =====

MANUFACTURED FOR: Camco Manufacturing, Inc.
ADDRESS: 121 Landmark Drive
Greensboro, NC 27409

EMERGENCY PHONE : 336-668-7661 DATE REVISED : 02/26/01
INFORMATION PHONE : 336-668-7661
NAME OF PREPARER : CAMCO MANUFACTURING, INC.
121 LANDMARK DR.
GREENSBORO, NC 27409
1-800-334-2004

==== SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION ====

REPORTABLE COMPONENTS	CAS NUMBER	OSHA PEL (ppm)	ACGIH TLV (ppm)	SARA III LIST
Petroleum Distillate	64742-47-8	N/E	N/E	No
Petroleum Distillate	Proprietary	5 mg/m3	5 mg/m3	No
Isobutane/prpopnae blend	75-28-5		800	800 No No
	74-98-6	1000	1000	
Ethyl Acetate	141-78-6	400	400	No

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING RANGE: N/A SPECIFIC GRAVITY (H2O=1): 0.88
VAPOR PRESSURE: PSIG @70°F (Aerosols): Max. 70
VAPOR DENSITY: N/A EVAPORATION RATE: N/E
SOLUBILITY IN WATER: Negligible
APPEARANCE AND ODOR: Dark Opaque Liquid with mild petroleum odor.
Material foams upon contact with surface.

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLAMMABILITY as per USA FLAME PROJECTION TEST: (aerosols) Extremely Flammable.
FLASH POINT (non-aerosols): N/A METHOD USED: N/A
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/E UPPER: N/E
EXTINGUISHING MEDIA: Foam, Alcohol foam, CO2, Dry chemical, water fog, other.
SPECIAL FIREFIGHTING PROCEDURES: Use self contained breathing apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not expose aerosols to temperatures of over 130°F or the container may rupture.

===== SECTION V - REACTIVITY DATA =====

STABILITY: Stable
CONDITIONS TO AVOID: Open flame, welding arcs, heat, sparks.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizers
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide, carbon dioxide.
HAZARDOUS POLYMERIZATION: Will not occur.

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION: Excessive inhalation of vapors can be harmful and may cause headache, dizziness, lethargy, nausea.
EYE CONTACT: Irritation.
SKIN CONTACT: Mild irritation, redness, drying due to defatting.

**MATERIAL SAFETY DATA SHEET
SLIDE OUT RUBBER SEAL CONDITIONER**

Page: 2

INGESTION: Nausea, dizziness, loss of muscle coordination, Aspiration pneumonia hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Not Established.

CARCINOGENICITY: No. **NTP CARCINOGEN:** No

IARC MONOGRAPHS: No **OSHA REGULATED:** No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: May aggravate existing eye, skin, or upper respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air, resuscitate if necessary. Get medical attention.

EYE CONTACT: Flush with water for at least 15 minutes. if irritated, seek medical attention.

SKIN CONTACT: Wash with soap and water. If irritated, seek medical attention. Remove contaminated clothing and launder before re-wearing.

INGESTION: DO NOT INDUCE VOMITING. Get immediate medical attention.

==== **SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE** =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate all ignition sources. Absorb spilled liquid with suitable medium. Incinerate or landfill according to local, state and federal regulations. Do not flush into sewers.

WASTE DISPOSAL METHOD: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Do not puncture or incinerate containers. Do not store at temperatures over 130°F.

OTHER PRECAUTIONS: Keep out of the reach of children. Avoid food contamination. Avoid inhalation of spray mist. Avoid water contamination.

===== **SECTION VIII - CONTROL MEASURES** =====

RESPIRATORY PROTECTION: If vapor concentration exceeds TLV, use respirator approved by NIOSH/MSHA for organic vapor.

VENTILATION: Adequate ventilation to keep vapor concentration below TLV.

PROTECTIVE GLOVES: Neoprene or nitrile if contact expected.

EYE PROTECTION: Safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None.

WORK/HYGIENIC PRACTICES: Wash with soap and water before handling food. Remove contaminated clothing.

===== **SECTION X - DISCLAIMER** =====

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of his own use, handling and disposal of this product.

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SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 1- Chemical Product and Company Identification

Product Name: Pro-Tec RV Roof Cleaner
Pro-Strength

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Clean Agent

Product Code: 41068 (Gallon)

Date of Preparation/Revision: December 12, 2014

In case of Emergency: 1-800-535-5053

Section 2- Hazards identification

Physical State: Liquid. [CLEAR, PALE YELLOW, LIQUID WITH CHARACTERISTIC SWEET ODOR]



Irritant

WARNING

GHS Classifications

Eye Damage / Irritation (Category 2B)
Acute Toxicity - Inhalation (Category 4)
Skin Damage / Irritation (Category 3)
Acute Oral Toxicity (Category 4)

Hazard Statements

H302 Harmful if swallowed
H316 Causes mild skin irritation
H320 Causes eye irritation
H332 Harmful if inhaled

Precautionary statements

P102 Keep out of reach of children
P233 Keep container tightly closed
P260 Do not breathe dust/fumes/gas/mist/vapors/spray
P264 Wash thoroughly after handling
P270 Do not eat, drink or smoke when using this product

Response statements

P330 Rinse mouth
P331 Do Not induce vomiting
P301 + P312 IF SWALLOWED: Call a Poison Center or Doctor/Physician if you feel unwell
P304 + P340 + P313 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists get medical attention

P332 + P313 If skin irritation persists get medical attention

P321 Specific treatment (see First Aid Measures on Safety Data Sheet)

Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations

WARNING! This product may be harmful or fatal if swallowed. This product is irritating to the eyes, respiratory system and skin. This product is an aqueous solution which will not burn. Irritating and toxic fumes and gases may be released upon thermal processing or during combustion.

Potential Health Effects: Eyes

Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe over exposure can result in swelling of the conjunctiva along with tissue damage which may lead to blindness.

Potential Health Effects: Skin

This product is irritating to the skin. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, and possible tissue damage. Repeated contact with this material may produce dermatitis.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. If ingested, this product will immediately cause burns to the mouth, throat, esophagus and possibly the digestive tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Inhalation of vapors or mists of the product can cause sneezing, coughing and difficulty breathing.

Medical Conditions Aggravated by Exposure

Pre-existing skin and eye conditions.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

See toxicological information (section 11)

Section 3 - Composition, Information on Ingredients

<u>Name</u>	<u>CAS Number</u>	<u>% Volume</u>
Sodium Metasilicate	6834-92-0	0.4 - 0.7%
Linear Alcohol Ethoxylate	68439-46-3	2 - 4%
Sodium Alkylbenzene Sulfonate	68081-81-2	2 - 4%
Coco Aminopropyl Betaine	61789-40-0	2 - 4%
Sodium Lauryl Sulfate	151-21-3	2 - 4%

Component Related Regulatory Information

Product is biodegradable within 28 days

Component Information/Information on Non-Hazardous Components

This product is considered to be non-hazardous under 29 CFR 1910.1200

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 4 - First Aid Measures

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Eye contact** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
- Skin contact** For skin contact, wash immediately with soap and water. If irritation persists get medical attention.
- Ingestion** If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.
- Inhalation** If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If irritation persists get medical attention.
- Notes to Physician** Provide general supportive measures and treat symptomatically.

Section 5 - Fire-Fighting Measures

FLASH POINT: >210° F (100° C) **METHOD USED:** PMCC
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A **UPPER:** N/A

General Fire Hazards

This product is an aqueous solution which will not burn. Non-Flammable

Hazardous Combustion Products

Decomposition may yield carbon dioxide compounds and oxides of nitrogen.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other: none

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental release measures

Containment Procedures

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.

Clean-Up Procedures

Absorb spill with inert material such as: lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 7- Handling and Storage

Handling Procedures

Open container carefully, as needed to relieve any build up of pressure. Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Use this product with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

Store in a cool, dry area. Do not freeze. Store away from direct sunlight and any sources of heat. Empty product containers may contain product residue. Do not reuse empty containers. Do not store this material in open or unlabeled containers.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles and face shield.

Personal Protective Equipment: Skin

Wear impervious (neoprene) gloves, impervious apron.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

Section 9 - Physical and Chemical Properties

Appearance:

Light Straw Translucent Liquid

Odor:

Fresh Fragrance

Physical State:

Liquid

pH: (@59° F / 15° C)

9.5 to 11.5

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Freeze Point:	-31° F (-35° C)
Vapor pressure:	Not Applicable
Vapor density:	Not Applicable
Boiling Point:	>212°F (>100° C)
Melting Point:	Not Determined
Solubility:	Completely
Specific Gravity: (@70° F / 21° C)	1.020
Flash Point (PMCC):	>210° F (100° C)
Auto-ignition Temperature:	Not Determine
Flammable Limits in Air by Volume:	Not Applicable
Evaporation Rate:	Similar to Water
Decomposition Temperature:	Not Available
Viscosity (cps):	< 50 cps
VOC (%):	< 2% by weight

Physical Properties: Additional Information

No additional information available

Section 10 - Stability and Reactivity

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid contact with extreme heat and incompatible materials.

Incompatibility

This product is incompatible with flammable and combustible materials, strong oxidizing agents.

Hazardous Decomposition

Decomposition may yield carbon dioxide, carbon monoxide and oxides of nitrogen.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute and Chronic Toxicity

General Product Information

No information available for the product.

This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Chronic Toxicity

No information available for the product.

Epidemiology

No epidemiological data is available for this product.

Neurotoxicity

No data available for this product.

Mutagenicity

No data available for this product.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Teratogenicity

No data available for this product.

Other Toxicological Information

No additional information available.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No data available for this product.

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport information

US DOT Information

This material is not hazardous as defined by 49CFR 172.101 by the US Department of Transportation.

IMDG

Refer to Current IMDG regulations for full shipping description requirements

IATA

This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation

Section 15 - Regulatory Information

U.S. Federal regulations

General Product Information

No additional information available.

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

Connecticut Carcinogen Reporting: This material is not listed.
Connecticut Hazardous Material Survey: This material is not listed.
Florida substances: This material is not listed.
Illinois Chemical Safety Act: This material is not listed.
Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
Louisiana Reporting: This material is not listed.
Louisiana Spill: This material is not listed.
Massachusetts Spill: This material is not listed.
Massachusetts Substances: This material is listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is listed.
Rhode Island Hazardous Substances: This material is not listed.
California Prop 65 Warning: This material is not listed

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

Section 16 - Other information

NFPA CODES: Health	1
Flammability	1
Reactivity	0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

Date of Preparation/Revision: December 12, 2014 (Supersedes all previous SDS)

DISCLAIMER

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SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 1- Chemical Product and Company Identification

Product Name: Pro-Tec RV Roof Protectant
Pro-Strength

Supplier: Camco Manufacturing, Inc.
121 Landmark Drive
Greensboro, NC 27409
1-800-334-2004

Product Use: Clean Agent/Protectant

Product Code: 41448 (Gallon)

Date of Preparation/Revision: December 12, 2014

In case of Emergency: 1-800-535-5053

Section 2- Hazards identification

Physical State: Liquid. [OPAQUE, OFF-WHITE, LIQUID WITH CHARACTERISTIC LEMON ODOR]

WARNING

GHS Classifications

Eye Damage / Irritation (Category 2B)
Acute Toxicity - Inhalation (Category 5)
Skin Damage / Irritation (Category 3)
Acute Oral Toxicity (Category 5)

Hazard Statements

H303 May be harmful if swallowed
H316 Causes mild skin irritation
H320 Causes eye irritation
H333 May be harmful if inhaled

Precautionary statements

P102 Keep out of reach of children
P233 Keep container tightly closed
P264 Wash thoroughly after handling

Response statements

P330 Rinse mouth
P331 Do Not induce vomiting
P304+312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persist get medical attention
P332 + P313 If skin irritation persist get medical attention
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P321 Specific treatment (see First Aid Measures on Safety Data Sheet)

Disposal

P501 Dispose of contents/container in accordance with local/regional/national regulations

WARNING! This product may be harmful or fatal if swallowed. This product is irritating to the eyes, respiratory system and skin. This product is an aqueous solution which will not burn.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Irritating and toxic fumes and gases may be released upon thermal processing or during combustion.

Potential Health Effects: Eyes

Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe over exposure can result in swelling of the conjunctiva along with tissue damage which may lead to blindness.

Potential Health Effects: Skin

This product is irritating to the skin. Depending on the duration of contact, symptoms will include reddening, discomfort, irritation, and possible tissue damage. Repeated contact with this material may produce dermatitis.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. If ingested, this product will immediately cause burns to the mouth, throat, esophagus and possibly the digestive tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Potential Health Effects: Inhalation

This product is irritating to the respiratory system. Inhalation of vapors or mists of the product can cause sneezing, coughing and difficulty breathing.

Medical Conditions Aggravated by Exposure

Pre-existing skin and eye conditions.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

See toxicological information (section 11)

Section 3 - Composition, Information on Ingredients

<u>Name</u>	<u>CAS Number</u>	<u>% Volume</u>
Ethoxylated Alcohol	68439-46-3	1 - 2%
Alkoxy Polyethoxy Ethanol	60828-78-6	0.5 - 1%
Silicone Fluid	63148-62-9	5 - 10%
Carnauba Wax	NA	2 - 4%

Component Information/Information on Non-Hazardous Components

This product is considered to be non-hazardous under 29 CFR 1910.1200

Section 4 - First Aid Measures

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Eye contact	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
Skin contact	For skin contact, wash immediately with soap and water. If irritation persists get medical attention.
Ingestion	If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting. Dilute by giving water. Keep warm and quiet. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Inhalation	If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If irritation persists get medical attention.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Notes to Physician Provide general supportive measures and treat symptomatically.

Section 5 - Fire-Fighting Measures

FLASH POINT: >210° F

METHOD USED: TCC

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A **UPPER:** N/A

General Fire Hazards

This product is an aqueous solution which will not burn. Non-Flammable

Hazardous Combustion Products

Decomposition may yield carbon dioxide compounds and oxides of nitrogen.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

Unusual Fire and Explosion Hazards

Keep away from heat, sparks, and open flame. Guard against spontaneous combustion of improperly discarded oily rags.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other: none

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental release measures

Containment Procedures

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways.

Clean-Up Procedures

Absorb spill with inert material such as: lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Isolate exposure. Wear appropriate personal protective equipment. Follow all Local, State, Federal and Provincial regulations for disposal.

Section 7- Handling and Storage

Handling Procedures

Open container carefully, as needed to relieve any build up of pressure. Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Use this product with adequate ventilation. Wash thoroughly after handling.

Storage Procedures

Store in a cool, dry area. Do not freeze. Store away from direct sunlight and any sources of heat. Empty product containers may contain product residue. Do not reuse empty containers. Do not store this material in open or unlabeled containers.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles and face shield.

Personal Protective Equipment: Skin

Wear impervious (neoprene) gloves, impervious apron.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors or mists, appropriate approved NIOSH respiratory protection must be provided. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. An emergency spill response will necessitate the use of more stringent personal protective equipment.

Section 9 - Physical and Chemical Properties

Appearance:	Opaque Off-White Liquid
Odor:	Lemon Fragrance
Physical State:	Liquid
pH: (@59° F / 15° C)	6.0 to 8.5
Vapor pressure:	Not Applicable
Vapor density:	Not Applicable
Boiling Point:	>200°F (>93.3° C)
Melting Point:	Not Determined
Solubility:	Partial Soluble
Specific Gravity: (@70° F / 21° C)	0.958
Freeze Point:	32° F (0° C)
Flash Point (TCC):	>210° F (>100° C)
Auto-ignition Temperature:	Not Flammable
Flammable Limits in Air by Volume:	Not Applicable
Evaporation Rate:	Similar to Water
Decomposition Temperature:	Not Available
Viscosity (cps):	< 50cps

Physical Properties: Additional Information

No additional information available

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 10 - Stability and Reactivity

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid contact with extreme heat and incompatible materials.

Incompatibility

This product is incompatible with flammable and combustible materials, strong oxidizing agents.

Hazardous Decomposition

Decomposition may yield carbon dioxide, carbon monoxide and oxides of nitrogen.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute and Chronic Toxicity

General Product Information

No information available for the product.

This product may cause methemoglobinemia upon ingestion characterized by cyanosis, headache, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, coma and rarely death.

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Chronic Toxicity

No information available for the product.

Epidemiology

No epidemiological data is available for this product.

Neurotoxicity

No data available for this product.

Mutagenicity

No data available for this product.

Teratogenicity

No data available for this product.

Other Toxicological Information

No additional information available.

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No data available for this product.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

A: General Product Information

You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport information

US DOT Information

This material is not hazardous as defined by 49CFR 172.101 by the US Department of Transportation.

IMDG

Refer to Current IMDG regulations for full shipping description requirements

IATA

This material is not prepared or packaged for air transportation

International shipping requirements must be determined by the party offering the material for transportation

Section 15 - Regulatory Information

U.S. Federal regulations

General Product Information

No additional information available.

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations

Connecticut Carcinogen Reporting: This material is not listed.

Connecticut Hazardous Material Survey: This material is not listed.

Florida substances: This material is not listed.

Illinois Chemical Safety Act: This material is not listed.

Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.

Louisiana Reporting: This material is not listed.

Louisiana Spill: This material is not listed.

Massachusetts Spill: This material is not listed.

SAFETY DATA SHEET

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Pro-Strength Pro-Tec RV Roof System

Massachusetts Substances: This material is listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is listed.
Rhode Island Hazardous Substances: This material is not listed.
California Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Additional Regulatory Information

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

Section 16 - Other information

NFPA CODES: Health	1
Flammability	1
Reactivity	0

Note - NFPA ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing extreme hazards or risks.

Date of Preparation/Revision: December 12, 2014 (Supersedes all previous SDS)

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Camco Manufacturing, Inc., to be accurate. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the responsibility of the user to determine the safety, toxicity and suitability of their own use, handling and disposal of this product.

CAMCO MFG INC -- WINDSHIELD WASHER FLUID-20, 30907 -- 7930-00N088464

=====
Product Identification
=====

Product ID:WINDSHIELD WASHER FLUID-20, 30907

MSDS Date:04/22/1997

FSC:7930

NIIN:00N088464

MSDS Number: CHPCZ

=== Responsible Party ===

Company Name:CAMCO MFG INC

Address:121 LANDMARK DR

City:GREENSBORO

State:NC

ZIP:27409

Country:US

Info Phone Num:910-668-7661

Emergency Phone Num:800-334-2004

CAGE:GO309

=== Contractor Identification ===

Company Name:CAMCO MANUFACTURING INC

Address:121 LANDMARK DR

Box:City:GREENSBORO

State:NC

ZIP:27409

Country:US

Phone:919-668-7661

CAGE:1EA43

Company Name:CAMCO MFG INC

Address:121 LANDMARK DR

City:GREENSBORO

State:NC

ZIP:27409-9603

Country:US

Phone:919-668-7661

CAGE:GO309

=====
Composition/Information on Ingredients
=====

Ingred Name:METHANOL; (METHYL ALCOHOL) (SARA 313) (CERCLA). VP:96.1 @
20C.

CAS:67-56-1

RTECS #:PC1400000

Fraction by Wt: <21%

OSHA PEL:200 PPM, S

ACGIH TLV:200 PPM;250 STEL, S

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:ADDITIVES

Fraction by Wt: <1%

OSHA PEL:N/K

ACGIH TLV:N/K

Ingred Name:VOLATILE ORGANIC COMPOUNDS: COATING & MATERIAL - 1.65
LB/GAL.

RTECS #:9999999VO

Ingred Name:FIRE FIGHT PROC:PREVENT PRESSURE BUILD-UP & POSSIBLE

AUTO-IGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF (ING 5)
RTECS #:9999999ZZ

Ingred Name:ING 4:WATER IS USED, FOG NOZZLES ARE PREFERABLE.
RTECS #:9999999ZZ

=====
Hazards Identification
=====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHAL:MAY CAUSE NOSE & THROAT IRRIT.
HIGH CONCS MAY CAUSE ACUTE CNS DEPRESS CHARACT BY HDCHS, DIZZ, NAUS
& CONFUSN. EYE CONT:MAY CAUSE IRRIT. SKIN CONT:FREQUENT/PRLNG CONT
MAY CAUSE IRRIT EXPR AS BUR NING, DRYING, CRACKING & REDNESS. SKIN
ABSORPTION:HARMFUL QTYS OF METHYL ALCOHOL MAY EFT EYES & CNS. (EFTS
OF OVEREXP)
Explanation of Carcinogenicity:NOT RELEVANT
Effects of Overexposure:HLTH HAZ:INGEST:MAY CAUSE NAUS, ABDOM PAIN,
HDCH, SHORTNESS OF BREATH, VISUAL IMPAIRMENT & BLINDNESS. SEV POIS
CAN CAUSE COMA & DEATH. INGEST OF LG AMTS OF METHYL ALCOHOL HAS
BEEN SHOWN TO DMG ORGS IN CL LIVER, KIDNEY, PANCREAS, HEART, LUNGS
& BRAIN. ALTHOUGH THIS RARELY OCCURS, SURVIVORS OF SEV INTOX MAY
SUFFER(SUPDAT)
Medical Cond Aggravated by Exposure:OVEREXPOSURE MAY AGGRAVATE
PRE-EXISTING DISORDERS OF THE EYES.

=====
First Aid Measures
=====

First Aid:INHAL:REMOVE TO FRESH AIR. IF BRTHG HAS STOPPED, APPLY ARTF
RESP. IF BRTHG IS DFCLT, GIVE OXYG PROVIDED QUALIFIED OPERATOR IS
AVAIL. GET MED ATTN. EYES:FLUSH W/LG QTYS OF WATER FOR AT LST 15
MINS & SE EK MED ATTN. SKIN:REMOVE CONTAM CLTHG &WASH CONTAM SKIN
W/LG AMTS OF SOAP & WATER. IF IRRIT PERSISTS, GET MED ATTN. LAUNDER
CLTHG BEFORE REUSE. INGEST:DO NOT INDUCE VOMIT. (NEVER GIVE (SUPP
DATA)

=====
Fire Fighting Measures
=====

Flash Point Method:PMCC
Flash Point:105F,41C
Lower Limits:7.3%
Upper Limits:36%
Extinguishing Media:FOAM, DRY CHEM, CARBON DIOXIDE/ANY CLASS B EXTING
AGENT. WATER MAY BE UNSUITABLE AS EXTING MEDIUM, BUT HELPFUL
(SUPDAT)
Fire Fighting Procedures:USE NIOSH APPRVD SCBA & FULL PROT EQUIP . USE
WATER SPRAY TO COOL FIRE EXPOS CNTNRS. WATER MAY BE INEFT, BUT MAY
BE USED TO COOL EXPOS CNTNRS TO (ING 4)
Unusual Fire/Explosion Hazard:HANDLE AS FLAMM LIQ. VAPS FORM EXPLO MIXT
IN AIR BTWN UPPER & LOWER EXPLO LIMS WHICH CAN BE IGNITED BY MANY
SOURCES SUCH AS PILOT LIGHTS, OPEN FLAMES, (SUPDAT)

=====
Accidental Release Measures
=====

Spill Release Procedures:KEEP SPECTATORS AWAY. ELIM ALL IGNIT SOURCES
(FLAMES, HOT SURFS & SOURCES OF ELEC, STATIC/FRICTIONAL SPKS): DIKE
& CNTN SPILL W/INERT MATL (E.G., SAND, EARTH). TRANSFER LIQS TO
COVERED METAL CNTNRS FO R RECOVERY/DISP, OR REMOVE W/INERT
ABSORBENT.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

=====
===== Handling and Storage =====

Handling and Storage Precautions:AVOID PROLONGED OR REPEATED SKIN CONTACT. DO NOT SWALLOW. STORE IN CLOSED CONTAINERS IN A COOL, DRY, WELL VENTILATED AREA.

Other Precautions:KEEP AWAY FROM SPARKS & OPEN FLAME.

=====
===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE NIOSH APPROVED RESPIRATOR WHEN TLV IS EXCEEDED.

Ventilation:PROVIDE SUFFICIENT VENTILATION TO MAINTAIN EXPOSURE BELOW TLV.

Protective Gloves:APPROPRIATE IMPERMEABLE GLOVES.

Eye Protection:ANSI APPRVD CHEM WORKERS GOGGLES .

Other Protective Equipment:EYE WASH FOUNTAIN & DELUGE SHOWER WHICH MEET ANSI DESIGN CRITERIA . LONG SLEEVES & APRON IS RECOMMENDED.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

EXTING MEDIA:IN KEEPING ADJACENT CNTNRS COOL. EXPLO HAZ:ELEC MOTORS & SWITCHES. HAZ DECOMP PROD:IN SUFFICIENT CONCS CAN ACT AS ASPHY. EFTS OF OVEREXP:PERM NEUROLOGICAL DMG. FIRST AID PROC:ANYTHING BY MOUTH TO UNCONSCIOUS PERSON). CALL POISCTL CTR, HOSPITAL EMERGENCY ROOM/MD IMMED.

=====
===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text:>148F, >65C

Vapor Pres:SEE ING 1

Vapor Density:HVR/AIR

Spec Gravity:0.95 (H*20=1)

Evaporation Rate & Reference:GREATER/N-BUTYL ACETATE

Solubility in Water:SOLUBLE

Appearance and Odor:CLEAR BLUE LIQUID; MILD ALCOHOL ODOR.

=====
===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS & STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:IGNITION SOURCES SUCH AS HEAT, SPARKS, FLAMES.

Hazardous Decomposition Products:BURNING CAN PRDCE CARBON MONOXIDE &/OR CARBON DIOXIDE. CARBON MONOXIDE IS HIGHLY TOX IF INHALED, CARBON DIOXIDE (SUPDAT)

=====
===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS.

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Safety data sheet
according to 1907/2006/EC, Article 31

Page 1/5
IG0E016

Revised On: 21.08.2015

Printing date 21.08.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Trade name: Bender Colonial White Paint, Aerosol 
Article number: IG0E016
Sector of Use: Industrial uses: Uses of substances as such or in preparations at industrial sites
 Consumer uses: Private households / general public / consumers
Product category: Paints
Manufacturer/Supplier: Bender's Wholesale Dist., Inc.
 P.O. Box 1407
 Elkhart, IN 46515
 phone: (574) 264-4409
 (800) 424-9300
Emergency telephone number:

SECTION 2: Hazards Identification

Classification of the substance or mixture

Flam. Aerosol 1: Extremely flammable aerosol.
Press. Gas: Contains gas under pressure; may explode if heated.
Skin Irrit. 2: Causes skin irritation.
Eye Irrit. 2A: Causes serious eye irritation.
Repr. 2: Suspected of damaging fertility or the unborn child.
STOT SE 3: May cause drowsiness or dizziness.
STOT RE 2: May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms



Signal word

Danger

Hazard statements

Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of damaging fertility or the unborn child.
 May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container. Do not pierce or burn, even after use.
 Use only outdoors or in a well ventilated area.
 Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
 IF INGESTED: Rinse mouth with water. Do not induce vomiting.
 IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
 Protect from sunlight. Do not expose to temperatures exceeding 122° F (50° C).
 Store locked up in a well ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	Acetone	15 - 25%
74-96-6	Propane	15 - 25%
110-54-3	Hexane	10 - 20%
106-97-7	N-Butane	10 - 20%
13463-67-7	Titanium Dioxide	5 - 10%
108-88-3	Toluene	1 - 5%
64742-89-8	VM & P Naptha	1 - 5%
108-10-1	Methyl Isobutyl Ketone	1 - 5%
64742-47-8	Mineral Spirits	1 - 5%
2807-30-9	Glycol Ether EP	1 - 5%
1330-20-7	Xylene (mix)	1 - 5%
108-65-6	PM Acetate	1 - 5%

SECTION 4: First aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Rinse mouth with water. Do not induce vomiting.

(Continued on page 2)

SECTION 4: First aid measures (Continued)

Most important symptoms and effects:

Indication of any immediate medical attention needed: Dizziness
No further relevant information available.

SECTION 5: Firefighting measures

Extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray.
Special Hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: Mould respiratory protective device.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Use only in well ventilated areas.

Fire/explosion protection:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Do not spray onto a naked flame or any incandescent material.

Storage Requirements:

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with limit values that require monitoring at the workplace:

67-64-1 Acetone

PEL (USA) Long-term value: 2400 mg/m³, 1000 ppm
REL (USA) Long-term value: 590 mg/m³, 250 ppm
TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
BEI

74-98-6 Propane

PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm
REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA) refer to Appendix F

110-54-3 Hexane

PEL (USA) Long-term value: 1800 mg/m³, 500 ppm
REL (USA) Long-term value: 180 mg/m³, 50 ppm
TLV (USA) Long-term value: 180 mg/m³, 50 ppm
Short-term value: 176 mg/m³, 50 ppm
Skin; BEI

108-88-3 Toluene

PEL (USA) Long-term value: 200 ppm
Ceiling limit value: 300; 500* ppm
* 10-min peak per 8-hr shift
REL (USA) Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
TLV (USA) Long-term value: 75 mg/m³, 20 ppm
BEI

106-97-8 N-Butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm
TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

108-65-6 PM Acetate

WEEL (USA) Long-term value: 50 ppm

108-10-1 Methyl Isobutyl Ketone

PEL (USA) Long-term value: 410 mg/m³, 100 ppm
REL (USA) Short-term value: 300 mg/m³, 75 ppm
Long-term value: 205 mg/m³, 50 ppm
TLV (USA) Short-term value: 307 mg/m³, 75 ppm
Long-term value: 82 mg/m³, 20 ppm
BEI

1330-20-7 Xylene (mix)

PEL (USA) Long-term value: 435 mg/m³, 100 ppm
REL (USA) Short-term value: 655 mg/m³, 150 ppm
Long-term value: 435 mg/m³, 100 ppm
TLV (USA) Short-term value: 651 mg/m³, 150 ppm
Long-term value: 434 mg/m³, 100 ppm
BEI

Printing date 21 05 2015

SECTION 8: Exposure controls/personal protection (Continued)

Ingredients with biological limit values:

- 67-64-1 Acetone**
BEI (USA) 50 mg/L
Medium: urine
Time: end of shift
Parameter: Acetone (nonspecific)
- 110-54-3 Hexane**
BEI (USA) 0.4 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: 2,5-Hexanedione without hydrolysis
- 108-88-3 Toluene**
BEI (USA) 0.02 mg/L
Medium: blood
Time: prior to last shift of workweek
Parameter: Toluene
- 0.03 mg/L
Medium: urine
Time: end of shift
Parameter: Toluene
- 0.3 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: O-Cresol with hydrolysis (background)
- 108-10-1 Methyl Isobutyl Ketone**
BEI (USA) 1 mg/L
Medium: urine
Time: end of shift
Parameter: MIBK
- 1330-20-7 Xylene**
BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

Hygienic protection: Immediately remove all soiled clothes and contaminated clothing.
Wash hands after use.
Avoid contact with eyes and skin.
Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure conditions exist, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles.

SECTION 9: Physical and chemical properties

Appearance: Aerosol
Odor: Aromatic.
Odor threshold: Not determined.

pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: -47°F (-44 °C)

Flash point: -2°F (-19 °C)
Flammability (solid, gas): Extremely flammable.

Decomposition temperature: Not determined.

Auto-igniting: Product is not selfigniting.

Danger of explosion: In use, may form flammable/explosive vapor-air mixture.
Lower Explosion Limit: 1,2 Vol %
Upper Explosion Limit: 10,9 Vol %

Vapor pressure: Not determined.

Relative Density: Between 0.77 and 0.85 (Water = 1.00)
Vapor density: Not determined.
Evaporation rate: Not applicable.

(Continued on page 4)

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SECTION 9: Physical and chemical properties (Continued)

Partition coefficient: n-octanol/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
VOC content:	4.22 lb/gal / 505.9 g/l
VOC content (less exempt solvents):	49.1%
MIR Value:	0.90
Solids Content:	20.6%

SECTION 10: Stability and reactivity

Reactivity:	Stable at normal temperatures.
Conditions to avoid:	Do not allow can to exceed 120°F. Do not warehouse in subfreezing temperatures.
Chemical Stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

Chemical Stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

SECTION 11: Toxicological information

106-97-8 N-Butane
 Inhalative LD50/4 h 658 mg/l (rat)

13463-67-7 Titanium Dioxide
 Oral LD50 >20000 mg/kg (rat)
 Dermal LD50 >10000 mg/kg (rbt)
 Inhalative LD50/4 h 6.82 mg/l (rat)

108-10-1 Methyl Isobutyl Ketone
 Oral LD50 2100 mg/kg (rat)
 Dermal LD50 16000 mg/kg (rbt)
 Inhalative LD50/4 h 8.3-16.6 mg/l (rat)

1330-20-7 Xylene (mix)
 Oral LD50 8700 mg/kg (rat)
 Dermal LD50 2000 mg/kg (rab)
 Inhalative LD50/4 h 6350 mg/l (rat)

108-65-6 PM Acetate
 Oral LD50 8500 mg/kg (rat)
 Inhalative LD50/4 h 35.7 mg/l (rat)

Information on toxicological effects:	No data available.
Skin effects:	No irritant effect.
Eye effects:	Irritating effect.
Sensitization:	No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3 Toluene	3
13463-67-7 Titanium Dioxide	2B
108-10-1 Methyl Isobutyl Ketone	2B
1330-20-7 Xylene (mix)	3

NTP (National Toxicity Program)

None of the ingredients is listed.

SECTION 12: Ecological information

Aquatic toxicity:	Hazardous to water, do not empty into drains.
Persistence and degradability:	The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Ecotoxic effects:	No further relevant information available.
Other adverse effects:	No further relevant information available.

SECTION 13: Disposal considerations

Dispose of in accordance with local, state and federal regulations. Do not puncture, incinerate or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 21 08 2015

Revised On: 21 08 2015

SECTION 14: Transport information

UN-Number UN1950
DOT Consumer Commodity ORM-D
 Aerosols, flammable
 1950 Aerosols
ADR
Transport hazard class(es):
Class 2.1
Marine pollutant: No
Special precautions for user: Warning Gases
EMS number: F-D, S-U
Quantity limitations: On passenger aircraft/rail 75 kg
 On cargo aircraft only: 150 kg
ADR
Excepted quantities (EQ): Code: E0
 Not permitted as Excepted Quantity
IMDG
Limited quantities (LQ): 1L
Excepted quantities (EQ): Code: E0
 Not permitted as Excepted Quantity
Packaging Group: --
UN "Model Regulation": UN1950, Aerosols, 2.1

SECTION 15: Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product is listed.

SARA Section 313 (Specific toxic chemical listings):

110-54-3 Hexane
 108-88-3 Toluene
 1330-20-7 Xylene (mix)
 108-10-1 Methyl Isobutyl Ketone

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7 Titanium Dioxide
 108-10-1 Methyl Isobutyl Ketone
 100-41-4 Ethyl Benzene

California Proposition 65 chemicals known to cause developmental toxicity: 108-88-3 Toluene

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

EPA:

67-64-1 Acetone
 108-88-3 Toluene
 110-54-3 Hexane
 108-10-1 Methyl Isobutyl Ketone
 1330-20-7 Xylene (mix)

SECTION 16: Other information

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

LD50: Lethal dose, 50 percent
 Flam. Gas 1: Flammable gases, Hazard Category 1
 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

***** END OF SAFETY DATA SHEET *****

1 Identification of the substance and manufacturer

Trade name: **BENDERS DESIGNER BEIGE PAINT, AEROSOL**
 Product code: **IG0E027 Designer Beige**
 Product category: **Paints and Coatings**
 Manufacturer/Supplier: **Bender's Wholesale Dist., Inc.**
 P.O. Box 1407
 Elkhart, IN 46515
 (574) 264-4409
 (800) 424-9300



Emergency telephone number:

2 Hazard(s) identification

Classification of the substance or mixture

- Flam. Aerosol 1 H222 Extremely flammable aerosol.
- Press. Gas H280 Contains gas under pressure; may explode if heated.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- Repr. 2 H361 Suspected of damaging fertility or the unborn child.
- STOT SE 3 H336 May cause drowsiness or dizziness.
- STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS Hazard pictograms



Signal word

Hazard statements

Danger

Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of damaging fertility or the unborn child.
 May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Do not spray on an open flame or other ignition source.
 Do not pierce or burn, even after use.
 Wash hands thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Call a POISON CENTER/doctor if you feel unwell.
 If skin irritation occurs: Get medical advice/attention.
 IF ON SKIN: Wash with plenty of water.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Protect from sunlight. Store in a well-ventilated place.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/Information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-64-1 Acetone	<25%
74-98-6 propane	<20%
108-88-3 Toluene	<20%
106-97-8 n-butane	<15%
64742-89-8 VM&P Naphtha	<10%
64742-47-8 Mineral Spirits	<5%
13463-67-7 titanium dioxide	<5%
67-63-0 isopropyl alcohol	<5%
1330-20-7 xylene (mix)	<5%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse mouth with water. Do not induce vomiting.

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Trade name: BENDERS DESIGNER BEIGE PAINT, AEROSOL

(Contd. of page 1)

Most important symptoms and effects: Dizziness
Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures
Extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
Special hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures
Personal precautions, protective equipment and emergency procedures: Use respiratory protective device against the effects of fumes/dust/aerosol.
Methods and material for containment and cleaning up: Dispose contaminated material as waste according to section 13.

7 Handling and storage
Precautions for safe handling: Use only in well ventilated areas.
Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 Acetone
 PEL (USA) Long-term value: 2400 mg/m³, 1000 ppm
 REL (USA) Long-term value: 590 mg/m³, 250 ppm
 TLV (USA) Short-term value: 1187 mg/m³, 500 ppm
 Long-term value: 594 mg/m³, 250 ppm
 BEI

74-98-6 propane
 PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 TLV (USA) refer to Appendix F in TLVs and BEIs book

108-88-3 Toluene
 PEL (USA) Long-term value: 200 ppm
 Ceiling limit value: 300; 500* ppm
 *10-min peak per 8-hr shift
 REL (USA) Short-term value: 560 mg/m³, 150 ppm
 Long-term value: 375 mg/m³, 100 ppm
 TLV (USA) Long-term value: 75 mg/m³, 20 ppm
 BEI

106-97-8 n-butane
 REL (USA) Long-term value: 1900 mg/m³, 800 ppm
 TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

67-63-0 isopropyl alcohol
 PEL (USA) Long-term value: 980 mg/m³, 400 ppm
 REL (USA) Short-term value: 1225 mg/m³, 500 ppm
 Long-term value: 980 mg/m³, 400 ppm
 TLV (USA) Short-term value: 984 mg/m³, 400 ppm
 Long-term value: 492 mg/m³, 200 ppm
 BEI

1330-20-7 xylene (mix)
 PEL (USA) Long-term value: 435 mg/m³, 100 ppm
 REL (USA) Short-term value: 655 mg/m³, 150 ppm
 Long-term value: 435 mg/m³, 100 ppm
 TLV (USA) Short-term value: 651 mg/m³, 150 ppm
 Long-term value: 434 mg/m³, 100 ppm
 BEI

Ingredients with biological limit values:

67-64-1 Acetone
 BEI (USA) 50 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Acetone (nonspecific)

(Contd. on page 3)

Safety Data Sheet

Trade name: BENDERS DESIGNER BEIGE PAINT, AEROSOL

(Contd. of page 2)

108-88-3 Toluene

BEI (USA) 0.02 mg/L
Medium: blood
Time: prior to last shift of workweek
Parameter: Toluene

0.03 mg/L
Medium: urine
Time: end of shift
Parameter: Toluene

0.3 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: o-Cresol with hydrolysis (background)

67-63-0 isopropyl alcohol

BEI (USA) 40 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: Acetone (background, nonspecific)

1330-20-7 xylene (mix)

BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

Hygienic protection: Immediately remove all soiled and contaminated clothing.
Wash hands after use.
Avoid contact with the eyes and skin.
Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Nitrile gloves.
Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point: -44 °C (-47 °F)
Flash point: -19 °C (-2 °F)
Flammability (solid, gas): Extremely flammable.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit: 1.5 Vol %
Upper Explosion Limit: 10.9 Vol %
Vapor pressure: Not determined.
Relative Density: Between 0.77 and 0.85 (Water equals 1.00)
Vapour density: Not determined.
Evaporation rate: Not applicable.
Partition coefficient: n-octanol/water: Not determined.
Solubility: Not determined.
Viscosity: Not determined.
VOC content: 577.9 g/l / 4.82 lb/gl
VOC content (less exempt solvents): 62.3 %
MIR Value: 1.14
Solids content: 16.0 %

10 Stability and reactivity

Reactivity: Stable at normal temperatures.
Conditions to avoid: Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability: Not fully evaluated.
Possibility of hazardous reactions: No dangerous reactions known.
Incompatible materials: No further relevant information available.
Hazardous decomposition: No dangerous decomposition products known.

Safety Data Sheet

Printing date 02/22/2016

Revised On 02/22/2016

Trade name: BENDERS DESIGNER BEIGE PAINT, AEROSOL

(Contd. of page 3)

11 Toxicological information

LD/LC50 values that are relevant for classification:

106-97-8 n-butane

Inhalative LC50/4 h 658 mg/l (rat)

13463-67-7 titanium dioxide

Oral LD50 >20000 mg/kg (rat)

Dermal LD50 >10000 mg/kg (rbt)

Inhalative LC50/4 h >6.82 mg/l (rat)

67-63-0 isopropyl alcohol

Oral LD50 4570 mg/kg (rat)

Dermal LD50 13400 mg/kg (rab)

Inhalative LC50/4 h 30 mg/l (rat)

1330-20-7 xylene (mix)

Oral LD50 8700 mg/kg (rat)

Dermal LD50 2000 mg/kg (rbt)

Inhalative LC50/4 h 6350 mg/l (rat)

Information on toxicological effects: No data available.

Skin effects: No irritant effect.

Eye effects: Irritating effect.

Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3 Toluene

3

13463-67-7 titanium dioxide

2B

67-63-0, isopropyl alcohol

3

1330-20-7 xylene (mix)

3

NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

Aquatic toxicity:

Hazardous for water, do not empty into drains.

Persistence and degradability:

The product is degradable after prolonged exposure to natural weathering processes.

Bioaccumulative potential:

No further relevant information available.

Mobility in soil:

No further relevant information available.

Other adverse effects:

No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number

UN1950

DOT

N/A

DOT

Aerosols, flammable

ADR

1950 Aerosols

Transport hazard class(es):

Class

2.1

Marine pollutant:

No

Special precautions for user:

Warning: Gases

EMS Number:

F-D,S-U

Quantity limitations

On passenger aircraft/rail: 75 kg

On cargo aircraft only: 150 kg

ADR

Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

IMDG

Limited quantities (LQ)

1L

Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

Packaging Group:

--

UN "Model Regulation":

UN1950, Aerosols, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3 Toluene

(Contd. on page 5)

Safety Data Sheet

Printing date 02/22/2016

Trade name: **BENDERS DESIGNER BEIGE PAINT, AEROSOL**

(Contd. of page 4)

67-63-0 isopropyl alcohol

1330-20-7 xylene (mix)

CPSC:

This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7 titanium dioxide

100-41-4 ethyl benzene

California Proposition 65 chemicals known to cause developmental toxicity:

108-88-3 Toluene

CANADIAN ENVIRONMENTAL PROTECTION ACT:
WHMIS Symbols for Canada:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

A - Compressed gas

D2A - Very toxic material causing other toxic effects



EPA:

67-64-1 Acetone

108-88-3 Toluene

1330-20-7 xylene (mix)

16 Other information

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief on the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Material should be used within a reasonable period of time as materials change with age. The customer and or user, upon receipt of material, accept full responsibility for said product.

**** END OF SAFETY DATA SHEET ****

BENDER'S WHOLESALE DIST., INC.
2911 MOOSE TRAIL - P.O. BOX 1407
ELKHART, INDIANA 46515

PAGE 1

M A T E R I A L S A F E T Y D A T A S H E E T

PHONE#: (574) 264-4409 24-HOUR D.O.T. PHONE#: (800) 424-9300
TRADE NAME: BENDER'S CHASSIS BROWN SPRAY PAINT (AEROSOL)
BENDER I.D. NUMBERS: IG0E092

DOCUMENT NUMBER: P000032A DATE OF ISSUE: 08/20/10

1. HAZARDOUS INGREDIENTS	C.A.S. NO.	PERCENT	EXPOSURE LIMITS	CODES
Titanium dioxide (as dust)	13463-67-7	< 5.0	15.0000mg/m3 10.0000mg/m3	2 1
Toluene	(1) 108-88-3	< 20.00	WA = ACC = 300 ppm ACM = 500 ppm MAX. DUR. = 10 min max peak 50.000ppm	2 * 2 2 2 1 1 S
Acetone	(1) 67-64-1	< 15.0	1,000.000ppm 500.000ppm	2 * 1
Carbon black	1333-86-4	< 5.0	3.5000mg/m3 3.5000mg/m3	2 # 1
Varnish Makers & Painter Naptha	8032-32-4	< 10.00	N	2
Xylene	(1) 1330-20-7	< 10.0	300.000ppm 100.000ppm 100.000ppm	1 2 1
Hexane	110-54-3	< 25.0	500.000ppm 50.000ppm	2 * 1
Ethyl Benzene	(1) 100-41-4	< 5.0	100.000ppm 100.000ppm	2 1
Propane	74-98-6	< 25.0	1,000.000ppm 2,500.000ppm	2 1
Isobutane	75-28-5	< 20.00	N	2
SC-100 Solvent	64742-95-6	< 5.0	N 50.000ppm 100.000ppm	1 2 1

(1) This chemical is subject to the reporting requirements of Section 313 of SARA Title III.

2. PHYSICAL DATA

BOILING POINT: NA VISCOSITY: NA
VAPOR PRESSURE: Aerosol cans 40 p.s.i. @ 70 F. pH: ND
VAPOR DENSITY (AIR=1): Heavier than air EVAPORATION RATE: Faster than ether
APPEARANCE AND ODOR: Brown liquid - solvent odor PERCENT VOLATILE: 82.0
SOLUBILITY IN WATER: ND SPECIFIC GRAVITY: 0.7131
V.O.C.: 4.95 LBS./GAL.
HMIS CODES: Health: 2 Flammability: 4 Equipment: B Reactivity: 0

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Aerosol - 10 F. (T.O.C.)

FLAMMABLE LIMITS: LEL: 1.00

D.O.T. CATEGORY: -AEROPANT Consumer Commodity ORM-D
Paints and related products with flash point 100 F. or lower - aerosolized
X

EXTINGUISHING MEDIA:

Water, carbon dioxide, dry chemical or foam.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material. Water spray may be ineffective. Water may be used to cool containers to prevent bursting. If water is used, fog nozzles are preferable. Temperatures above 120 degrees farenheight may cause bursting of aerosol cans.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

See section four, Conditions To Avoid and Hazardous Decomposition Products. Exposure to heat may cause bursing of aerosol can. Do not store above 120 degrees F. Overheated aerosol containers adjacent to fire could explode due to pressure buildup.

4. REACTIVITY DATA

STABILITY:

Stable.

INCOMPATIBILITY (Materials to avoid):

Strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

May not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

May produce hazardous fumes when heated to decomposition. Fumes may contain carbon dioxide, carbon monoxide and various hydrocarbons.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions in all sections. Remove all sources of ignition, avoid breathing vapors, ventilate area. Wipe up with inert material and place in metal container (D.O.T. approved if it is to be shipped).

RECOMMENDED DISPOSAL:

Dispose of in accordance with local, state and current federal EPA regulations.

5. ENVIRONMENTAL INFORMATION

CONTINUED

Do not incinerate aerosol can. Do not place in home compactor. Do not puncture.

ENVIRONMENTAL DATA:
ND

6. SUGGESTED FIRST AID

EYE CONTACT:

Flush eyes with plenty of water for at least 15 minutes and call a physician.

SKIN CONTACT:

Wash with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing prior to reuse.

INHALATION:

Move affected person to fresh air at once. Restore or support breathing as necessary. If breathing difficulties persist, call a physician.

IF SWALLOWED:

Ingestion of aerosol can is unlikely. If ingestion of contents should occur, DO NOT induce vomiting. Call a physician and/or transport to emergency facility immediately. If spontaneous vomiting should occur, lower victim's head between their knees to prevent aspiration into the lungs.

7. PRECAUTIONARY INFORMATION

Keep away from heat, sparks and flame. Use only in areas adequately ventilated to remove vapors and prevent vapor buildup. Avoid prolonged breathing of vapors. Avoid breathing of overspray (airborne paint, vinyl or oil particles) during spray application. Avoid contact with eyes and skin.

DO NOT place aerosol can in home compactor. Exposure to temperatures above 120 degrees F. can cause bursting of aerosol can.

PROTECTIVE EQUIPMENT: Wear safety goggles if mist might get into eyes.

Impervious gloves (P.V.A.) are recommended to prevent skin contact. Use an operating spray booth if at all possible. If not, provide other local exhaust ventilation to prevent vapor buildup. If adequate ventilation can not be maintained, a self-contained breathing apparatus, appropriate for the needs of your application, should be used.

8. HEALTH HAZARD DATA

EYE CONTACT:

Liquid irritating to eyes. Can cause tearing, redness and blurred vision.

SKIN CONTACT:

May defat skin causing dryness, cracking and irritation possibly leading to

8. HEALTH HAZARD DATA

CONTINUED

dermatitis.

INHALATION:

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

IF SWALLOWED:

Ingestion can cause gastrointestinal irritation. Symptoms include nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal. Aspiration of material must be avoided. Health studies have shown that many petroleum hydrocarbons pose potential human health risk which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized. Reports of animal test studies have shown possible effects to the liver, kidneys and lungs as well as embryo/fetotoxic effects. The relevance of these effects to man is unknown.

HEALTH DATA:

Deliberate inhalation of concentrated toluene vapors may cause brain disorders, lung damage and death. Animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. Rats exposed to 1400 ppm or 1200 ppm of toluene for 14 hours per day for 4 to 5 weeks (respectively) exhibited high frequency hearing defects. There is no evidence that industrially accepted levels of toluene vapors (E.G. the TLV) have produced cardiac effects in humans.

When acetone was absorbed systematically, it caused cataracts in laboratory animals. 10 to 20 ml has been taken orally without ill effects. This chemical is subject to the reporting requirements of section 313 of SARA Title III.

The presence (up to 50%) of N-Hexane in the solvent mixture for hexane represents a distinct hazard of producing peripheral polyneuropathy, a progressive disorder of the nervous system, which with sufficient high exposure has the potential of becoming irreversible. This disorder has been observed in individuals exposed repeatedly to high vapor concentrations (1000-1500 ppm) of N-Hexane over a period of several months. Exposure to this product should be controlled to keep the maximum level below 100 ppm which will result in N-Hexane exposure of 50 ppm or less, as recommended by ACGIH (1985-86).

ADDITIONAL HEALTH DATA:

NIOSH has identified numerous substances that should be treated as potential occupational carcinogens even though OSHA may not have identified them as such. In determining their carcinogenicity, NIOSH uses the OSHA classification outlined in 29 CFR 1990.103.

NIOSH has not identified thresholds for carcinogens that will protect 100% of the population. NIOSH usually recommends that occupational exposures to carcinogens be limited to the lowest feasible concentration. To ensure maximum protection from carcinogens through the use of respiratory protection, only the most reliable and protective respirators are recommended. These include (1) a self-contained breathing apparatus (SCBA) that has a full facepiece and is operated in a positive pressure mode, or (2) a supplied-air respirator that

8. HEALTH HAZARD DATA

CONTINUED

has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in a pressure-demand or other positive pressure mode.

NIOSH considers "Carbon Black" to be a material consisting of more than 80% elemental carbon in form of near-spherical colloidal particles and coalesced particle aggregates of colloidal size that is obtained by the partial combustion or thermal decomposition of hydrocarbons. The NIOSH REL (10-hour TWA) for carbon black is 3.5 mg/m³. Polycyclic aromatic hydrocarbons (PAHs), particulate polycyclic organic material (PPOM), and polynuclear aromatic hydrocarbons (PNAs) are terms frequently used to describe various petroleum-based substances that NIOSH considers to be potential occupational carcinogens. Since one of these aromatic hydrocarbons may be formed during the manufacture of carbon black (and become absorbed on the carbon black), the NIOSH REL (10-hour TWA) for carbon black in the presence of PAHs is also 0.1 mg PAHs/m³ (measure as the cyclohexane-extractable fraction). The OSHA PEL (8-hour TWA) for carbon black is 3.5 mg/m³.

ABBREVIATIONS:

1 - ACGIH Threshold Limit Values
 2 - Federal OSHA Permissible Exposure Limit
 3 - Chemical Manufacturer Recommended Guidelines
 N - None Established
 ACC - Acceptable Ceiling Concentration
 ACM - Maximum Acceptable Ceiling Concentration
 C - Centigrade
 F - Fahrenheit
 * - See "Health Data"
 # - See "Additional Health Data"
 S - Potential Critical Absorption by cutaneous route
 - Potential Critical Entrance by Respiration

H - Hours
 MAX. DUR. - Maximum Duration
 Min. - Minutes
 mg/m³ - Milligrams per square meter
 NA - Not Applicable
 ND - Not Determined
 ppm - Parts Per Million
 P.S.I. - Pounds per Square Inch
 WA - Weighted Average per 8 hour shift
 V.O.C. - Volatile Organic Compound
 R - Values for Inhalation only
 RCRA - Resource Conservation & Recovery Act

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves the use of the product in combination with any other product or any other process is the responsibility of the user.

EXTINGUISHING MEDIA:

Water, carbon dioxide, dry chemical or foam.

MSDS: P000041A

PAGE 2

3. FIRE AND EXPLOSION HAZARD DATA

CONTINUED

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material. Water spray may be ineffective. Water may be used to cool containers to prevent bursting. If water is used, fog nozzles are preferable. Temperatures above 120 degrees farenheight may cause bursting of aerosol cans.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

See section four, Conditions To Avoid and Hazardous Decomposition Products. Exposure to heat may cause bursing of aerosol can. Do not store above 120 degrees F. Overheated aerosol containers adjacent to fire could explode due to pressure buildup.

4. REACTIVITY DATA

STABILITY:

Stable.

INCOMPATIBILITY (Materials to avoid):

Strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

May not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

May produce hazardous fumes when heated to decomposition. Fumes may contain carbon dioxide, carbon monoxide and various hydrocarbons.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions in all sections. Remove all sources of ignition, avoid breathing vapors, ventilate area. Wipe up with inert material and place in metal container (D.O.T. approved if it is to be shipped).

RECOMMENDED DISPOSAL:

Dispose of in accordance with local, state and current federal EPA regulations. Do not incinerate aerosol can. Do not place in home compactor. Do not puncture.

ENVIRONMENTAL DATA:

ND

6. SUGGESTED FIRST AID

EYE CONTACT:

Flush eyes with plenty of water for at least 15 minutes and call a physician.

6. SUGGESTED FIRST AID

CONTINUED

SKIN CONTACT:

Wash with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing prior to reuse.

INHALATION:

Move affected person to fresh air at once. Restore or support breathing as necessary. If breathing difficulties persist, call a physician.

IF SWALLOWED:

Ingestion of aerosol can is unlikely. If ingestion of contents should occur, DO NOT induce vomiting. Call a physician and/or transport to emergency facility immediately. If spontaneous vomiting should occur, lower victim's head between their knees to prevent aspiration into the lungs.

7. PRECAUTIONARY INFORMATION

Keep away from heat, sparks and flame. Use only in areas adequately ventilated to remove vapors and prevent vapor buildup. Avoid prolonged breathing of vapors. Avoid breathing of overspray (airborne paint, vinyl or oil particles) during spray application. Avoid contact with eyes and skin. DO NOT place aerosol can in home compactor. Exposure to temperatures above 120 degrees F. can cause bursting of aerosol can. PROTECTIVE EQUIPMENT: Wear safety goggles if mist might get into eyes. Impervious gloves (P.V.A.) are recommended to prevent skin contact. Use an operating spray booth if at all possible. If not, provide other local exhaust ventilation to prevent vapor buildup. If adequate ventilation can not be maintained, a self-contained breathing apparatus, appropriate for the needs of your application, should be used.

8. HEALTH HAZARD DATA

EYE CONTACT:

Liquid irritating to eyes. Can cause tearing, redness and blurred vision.

SKIN CONTACT:

May defat skin causing dryness, cracking and irritation possibly leading to dermatitis.

INHALATION:

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

IF SWALLOWED:

Ingestion can cause gastrointestinal irritation. Symptoms include nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal. Aspiration of material must be avoided.

8. HEALTH HAZARD DATA

CONTINUED

Health studies have shown that many petroleum hydrocarbons pose potential human health risk which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimalized. Reports of animal test studies have shown possible effects to the liver, kidneys and lungs as well as embryo/fetotoxic effects. The relevance of these effects to man is unknown.

HEALTH DATA:

The presence (up to 50%) of N-Hexane in the solvent mixture for hexane represents a distinct hazard of producing peripheral polyneuropathy, a progressive disorder of the nervous system, which with sufficient high exposure has the potential of becoming irreversible. This disorder has been observed in individuals exposed repeatedly to high vapor concentrations (1000-1500 ppm) of N-Hexane over a period of several months. Exposure to this product should be controlled to keep the maximum level below 100 ppm which will result in N-Hexane exposure of 50 ppm or less, as recommended by ACGIH (1985-86). When acetone was absorbed systematically, it caused cataracts in laboratory animals. 10 to 20 ml has been taken orally without ill effects. This chemical is subject to the reporting requirements of section 313 of SARA Title III.

Deliberate inhalation of concentrated toluene vapors may cause brain disorders, lung damage and death. Animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. Rats exposed to 1400 ppm or 1200 ppm of toluene for 14 hours per day for 4 to 5 weeks (respectively) exhibited high frequency hearing defects. There is no evidence that industrially accepted levels of toluene vapors (E.G. the TLV) have produced cardiac effects in humans.

ADDITIONAL HEALTH DATA:

ABBREVIATIONS:

1 - ACGIH Threshold Limit Values
 2 - Federal OSHA Permissible Exposure Limit
 3 - Chemical Manufacturer Recommended Guidelines
 N - None Established
 ACC - Acceptable Ceiling Concentration
 ACM - Maximum Acceptable Ceiling Concentration
 C - Centigrade
 F - Fahrenheit
 * - See "Health Data"
 # - See "Additional Health Data"
 - Potential Critical Absorption by cutaneous route
 - Potential Critical Entrance by Respiration

H - Hours
 MAX. DUR. - Maximum Duration
 Min. - Minutes
 mg/m³ - Milligrams per square meter
 NA - Not Applicable
 ND - Not Determined
 ppm - Parts Per Million
 P.S.I. - Pounds per Square Inch
 WA - Weighted Average per 8 hour shift
 V.O.C. - Volatile Organic Compound
 R - Values for Inhalation only
 RCRA - Resource Conservation & Recovery Act

The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves the use of the product in combination with any other product or any other process is the responsibility of the user.


Safety data sheet
according to 1907/2006/EC, Article 31

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IG0E049


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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Trade name:	Bender Gray Zinc Based Primer, Aerosol	
Article number:	IG0E049	
Sector of Use	Industrial uses: Uses of substances as such or in preparations at industrial sites Consumer uses: Private households / general public / consumers	
Product category	Paints	
Manufacturer/Supplier:	Bender's Wholesale Dist., Inc. P.O. Box 1407 Elkhart, IN 46515 phone: (574) 264-4409	
Emergency telephone number:	(800) 424-9300	

SECTION 2: Hazards Identification

Classification of the substance or mixture	Extremely flammable aerosol.
Flam. Aerosol 1	Contains gas under pressure; may explode if heated.
Press. Gas	
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
Repr. 2	Suspected of damaging fertility or the unborn child.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.
Hazard pictograms	

Signal word	Danger
Hazard statements	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Use only outdoors or in a well ventilated area.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF INGESTED: Rinse mouth with water. Do not induce vomiting.
IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
Protect from sunlight. Do not expose to temperatures exceeding 122° F (50° C).
Store locked up in a well ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Description:	Mixture of substances listed below with nonhazardous additions.	
Dangerous components:		
67-64-1 Acetone		25 - 35%
74-98-6 Propane		15 - 25%
106-97-7 N-Butane		5 - 10%
108-88-3 Toluene		5 - 10%
1330-20-7 Xylene (mix)		1 - 5%
64-17-5 Ethyl Alcohol		1 - 5%
66402-68-4 Calcium Strontium Zinc Phosphosilicate		1 - 5%
13463-67-7 Titanium Dioxide		1 - 5%
110-19-0 Isobutyl Acetate		1 - 5%
64742-89-8 VM & P Naphtha		1 - 5%
64742-47-8 Mineral Spirits		1 - 5%
100-41-4 Ethyl Benzene		1 - 5%
67-56-1 Methanol		> 5%

SECTION 4: First aid measures

After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Generally the product does not irritate the skin.
After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

(Continued on page 2)

SECTION 4: First aid measures (Continued)

Most important symptoms and effects: Dizziness
After swallowing: Rinse mouth with water. Do not induce vomiting.
Indication of any immediate medical attention needed: No further relevant information available.

SECTION 5: Firefighting measures

Extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.
Special Hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: Mount respiratory protective device.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol.
Environmental precautions: Do not allow product to reach sewage system or any water course.
Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13.

SECTION 7: Handling and storage

Precautions for safe handling Use only in well ventilated areas.
Fire/explosion protection: Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
Storage Requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with limit values that require monitoring at the workplace:

67-64-1 Acetone

REL (USA) Long-term value: 2400 mg/m³, 1000 ppm
REL (USA) Long-term value: 590 mg/m³, 250 ppm
TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
BEI

74-98-6 Propane

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA) refer to Appendix F

108-88-3 Toluene

REL (USA) Long-term value: 200 ppm
Ceiling limit value: 300; 500* ppm
* 10-min peak per 8-hr shift
REL (USA) Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
TLV (USA) Long-term value: 75 mg/m³, 20 ppm
BEI

106-97-8 N-Butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm
TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

1330-20-7 Xylene (mix)

REL (USA) Long-term value: 435 mg/m³, 100 ppm
REL (USA) Short-term value: 655 mg/m³, 150 ppm
Long-term value: 435 mg/m³, 100 ppm
TLV (USA) Short-term value: 651 mg/m³, 150 ppm
Long-term value: 434 mg/m³, 100 ppm
BEI

64-17-5 Ethyl Alcohol

REL (USA) Long-term value: 1900 mg/m³, 1000 ppm
REL (USA) Long-term value: 1900 mg/m³, 1000 ppm
TLV (USA) Short-term value: 1880 mg/m³, 1000 ppm

110-19-0 Isobutyl Acetate

REL (USA) Long-term value: 700 mg/m³, 150 ppm
REL (USA) Long-term value: 700 mg/m³, 150 ppm
TLV (USA) Long-term value: 713 mg/m³, 150 ppm

100-41-4 Ethyl Benzene

EL (USA) Long-term value: 20 ppm
IARC 2B
REL (USA) Long-term value: 435 mg/m³, 100 ppm
TLV (USA) Short-term value: 545 mg/m³, 125 ppm
Long-term value: 435 mg/m³, 100 ppm

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SECTION 8: Exposure controls/personal protection (Continued)

TLV (USA) Long-term value: 87 mg/m³, 20 ppm
BEI
67-56-1 Methanol
PEL (USA) Long-term value: 260 mg/m³, 200 ppm
REL (USA) Short-term value: 325 mg/m³, 250 ppm
Long-term value: 260 mg/m³, 200 ppm
Skin
TLV (USA) Short-term value: 328 mg/m³, 250 ppm
Long-term value: 262 mg/m³, 200 ppm
Skin; BEI

Ingredients with biological limit values:

67-64-1 Acetone
BEI (USA) 50 mg/L
Medium: urine
Time: end of shift
Parameter: Acetone (nonspecific)

108-88-3 Toluene
BEI (USA) 0.02 mg/L
Medium: blood
Time: prior to last shift of workweek
Parameter: Toluene

0.03 mg/L
Medium: urine
Time: end of shift
Parameter: Toluene

0.3 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: O-Cresol with hydrolysis (background)

1330-20-7 Xylene (mix)
BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

100-41-4 Ethyl Benzene
BEI (USA) 0.7 g/g creatinine
Medium: urine
Time: end of shift at end of workweek
Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)

Medium: end-exhaled air
Time: not critical
Parameter: Ethyl Benzene (semi-quantitative)

67-56-1 Methanol
BEI (USA) 15 mg/L
Medium: urine
Time: end of shift
Parameter: Methanol (background, nonspecific)

Hygienic protection: Immediately remove all soiled clothes and contaminated clothing. Wash hands after use. Avoid contact with eyes and skin. Do not eat or drink while working. Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure conditions exist, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles.

SECTION 9: Physical and chemical properties

Appearance: Aerosol
Odor: Aromatic
Odor threshold: Not determined.
pH value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 166°F/(-110°C)

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SECTION 9: Physical and chemical properties (Continued)

Flash Point:	-2° F (-19° C)
Flammability (solid, gas):	Extremely flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	In use, may form flammable/explosive vapor-air mixture.
Lower Explosion Limit:	1.7 Vol %
Upper Explosion Limit:	10.9 Vol %
Partition coefficient: n-octanol/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
VOC content:	4.59 lb/gal / 550.4 g/l
VOC content (less exempt solvents):	50.1%
MIR Value:	1.20
Solids Content:	17.5%

SECTION 10: Stability and reactivity

Reactivity:	Stable at normal temperatures.
Conditions to avoid:	Do not allow can to exceed 120°F. Do not warehouse in subfreezing temperatures.
Chemical Stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

SECTION 11: Toxicological information

106-97-8	N-Butane
Inhalative LD50/4 h	658 mg/l (rat)
13463-67-7	Titanium Dioxide
Oral LD50	>20000 mg/kg (rat)
Dermal LD50	>10000 mg/kg (rbt)
Inhalative LD50/4 h	6.82 mg/l (rat)
1330-20-7	Xylene (mix)
Oral LD50	8700 mg/kg (rat)
Dermal LD50	2000 mg/kg (rbt)
Inhalative LD50/4 h	6350 mg/l (rat)
64-17-5	Ethyl Alcohol
Oral LD50	7060 mg/kg (rat)
Inhalative LD50/4 h	20000 mg/l (rat)
110-19-0	Isobutyl Acetate
Oral LD50	4763 mg/kg (rbt)
100-41-4	Ethyl Benzene
Oral LD50	3500 mg/kg (rat)
Dermal LD50	17800 mg/l (rbt)
67-56-1	Methanol
Oral LD50	13000 mg/kg (rat)

Information on toxicological effects:	No data available.
Skin effects:	No irritant effect.
Eye effects:	Irritating effect.
Sensitization:	No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3	Toluene	3
1330-20-7	Xylene (mix)	3
64-17-5	Ethyl Alcohol	1
13463-67-7	Titanium Dioxide	2B
100-41-4	Ethyl Benzene	2B

NTP (National Toxicity Program)

None of the ingredients is listed.

SECTION 12: Ecological information

Aquatic toxicity:	Hazardous to water, do not empty into drains.
Persistence and degradability:	The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Ecotoxicological effects:	
Other adverse effects:	No further relevant information available.

SECTION 13: Disposal considerations

Dispose of in accordance with local, state and federal regulations. Do not puncture, incinerate or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

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SECTION 14: Transport information

UN-Number UN1950
 DOT Consumer Commodity ORM-D
 Aerosols, flammable
 ADR 1950 Aerosols
 Transport hazard class(es):
 Class 2.1
 Marine pollutant: No
 Special precautions for user: Warning Gases
 EMS number: F-D, S-U
 Quantity limitations: On passenger aircraft/rail 75 kg
 On cargo aircraft only: 150 kg
 ADR
 Excepted quantities (EQ): Code: E0
 Not permitted as Excepted Quantity
 IMDG
 Limited quantities (LQ): 1L
 Excepted quantities (EQ): Code: E0
 Not permitted as Excepted Quantity
 Packaging Group:
 UN "Model Regulator": UN1950, Aerosols, 2.1

SECTION 15: Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product is listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3 Toluene
 1330-20-7 Xylene (mix)
 100-41-4 Ethyl Benzene

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7 Titanium Dioxide
 108-10-1 Methyl Isobutyl Ketone
 100-41-4 Ethyl Benzene

California Proposition 65 chemicals known to cause developmental toxicity: 108-88-3 Toluene
 67-56-1 Methanol

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

EPA:

67-64-1 Acetone
 108-88-3 Toluene
 1330-20-7 Xylene (mix)
 110-19-0 Isobutyl Acetate
 100-41-4 Ethyl Benzene

I
II
III
D
D

SECTION 16: Other information


Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

LD50: Lethal dose, 50 percent
 Flam. Gas 1: Flammable gases, Hazard Category 1
 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

***** END OF SAFETY DATA SHEET *****

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Trade name: Bender Gloss Black Paint, Aerosol 

Article number: IGOE002

Sector of Use: Industrial uses: Uses of substances as such or in preparations at industrial sites
Consumer uses: Private households / general public / consumers

Product category: Paints

Manufacturer/Supplier: Bender's Wholesale Dist., Inc.
P.O. Box 1407
Elkhart, IN 46515
phone: (574) 264-4409

Emergency telephone number: (800) 424-9300

SECTION 2: Hazards Identification

Classification of the substance or mixture

Flam. Aerosol 1 Extremely flammable aerosol.

Press. Gas Contains gas under pressure; may explode if heated.

Skin Irrit. 2 Causes skin irritation.

Eye Irrit. 2A Causes serious eye irritation.

Repr. 2 Suspected of damaging fertility or the unborn child.

STOT SE 3 May cause drowsiness or dizziness.

STOT RE 2 May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms



Signal word

Danger

Hazard statements

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container. Do not pierce or burn, even after use.
Use only outdoors or in a well ventilated area.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF INGESTED: Rinse mouth with water. Do not induce vomiting.
IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
Protect from sunlight. Do not expose to temperatures exceeding 122° F (50° C).
Store locked up in a well ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/ international regulations.

SECTION 3: Composition/information on Ingredients

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	Acetone	20 - 30%
74-98-6	Propane	14 - 20%
108-88-3	Toluene	14 - 20%
106-97-8	N-Butane	10 - 15%
64742-89-8	VM & P Naptha	5 - 10%
64742-47-8	Mineral Spirits	1 - 5%
67-63-0	Isopropyl Alcohol	1 - 5%
1330-20-7	Xylene (mix)	1 - 5%

SECTION 4: First aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects: Dizziness

Indication of any immediate medical attention needed: No further relevant information available.

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SECTION 5: Firefighting measures

Extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray.

Special Hazards:

Can form explosive gas-air mixtures.

Protective equipment for firefighters:

Mount respiratory protective device.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Use only in well ventilated areas.

Fire/explosion protection:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray onto a naked flame or any incandescent material.

Storage Requirements:

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with limit values that require monitoring at the workplace:

67-64-1 Acetone

REL (USA) Long-term value: 2400 mg/m³, 1000 ppm

REL (USA) Long-term value: 590 mg/m³, 250 ppm

TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm

Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm

BEI

74-98-6 Propane

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm

TLV (USA) refer to Appendix F

108-88-3 Toluene

REL (USA) Long-term value: 200 ppm

Ceiling limit value: 300; 500* ppm

* 10-min peak per 8-hr shift

REL (USA) Short-term value: 560 mg/m³, 150 ppm

Long-term value: 375 mg/m³, 100 ppm

TLV (USA) Long-term value: 75 mg/m³, 20 ppm

BEI

106-97-8 N-Butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm

TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

67-63-0 Isopropyl Alcohol

REL (USA) Long-term value: 980 mg/m³, 400 ppm

REL (USA) Short-term value: 1225 mg/m³, 500 ppm

Long-term value: 980 mg/m³, 400 ppm

TLV (USA) Short-term value: 984 mg/m³, 400 ppm

Long-term value: 492 mg/m³, 200 ppm

BEI

1330-20-7 Xylene (mix)

REL (USA) Long-term value: 435 mg/m³, 100 ppm

REL (USA) Short-term value: 655 mg/m³, 150 ppm

Long-term value: 435 mg/m³, 100 ppm

TLV (USA) Short-term value: 651 mg/m³, 150 ppm

Long-term value: 434 mg/m³, 100 ppm

BEI

Ingredients with biological limit values:

67-64-1 Acetone

BEI (USA) 50 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

108-88-3 Toluene

BEI (USA) 0.02 mg/L

Medium: blood

Time: prior to last shift of workweek

Parameter: Toluene

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Ingredients with biological limit values: (Continued)

108-88-3 Toluene (Continued)

BEI (USA) 0.03 mg/L
Medium: urine
Time: end of shift
Parameter: Toluene

0.03 mg/g creatinine
Medium: urine
Time: end of shift

67-63-0 Isopropyl Alcohol

BEI (USA) 40 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: Acetone (background, nonspecific)

1330-20-7 Xylene (mix)

BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

Hygienic protection: Immediately remove all soiled clothes and contaminated clothing.
Wash hands after use.
Avoid contact with eyes and skin.
Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure conditions exist, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles.

SECTION 9: Physical and chemical properties

Appearance: Aerosol
Odor: Aromatic.
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: -47°F (-44 °C)

Flash point: -2°F (-19 °C)
Flammability (solid, gas): Extremely flammable.

Decomposition temperature: Not determined.

Auto-igniting: Product is not selfigniting.

Danger of explosion: In use, may form flammable/explosive vapor-air mixture.

Lower Explosion Limit: 1.5 Vol %

Upper Explosion Limit: 10.9 Vol %

Vapor pressure: Not determined.

Relative Density: Between 0.77 and 0.85 (Water = 1.00)

Vapor density: Not determined.

Evaporation rate: Not applicable.

Partition coefficient: n-octanol/water: Not determined.

Solubility: Not determined.

Viscosity: Not determined.

VOC content: 4.35 lb/gal / 521.2 g/l

VOC content (less exempt solvents): 59.9%

MIR Value: 1.19

Solids Content: 18.9%

SECTION 10: Stability and reactivity

Reactivity: Stable at normal temperatures.

Conditions to avoid: Do not allow can to exceed 120°F. Do not warehouse in subfreezing temperatures.

Chemical Stability: Not fully evaluated.

Possibility of hazardous reactions: No dangerous reactions known.

Incompatible materials: No further relevant information available.

Hazardous decomposition: No dangerous decomposition products known.

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SECTION 11: Toxicological information

LD/LC50 values relevant for classification:

106-97-8 N-Butane

Inhalative | LC50/4 h | 658 mg/l (rat)

67-63-0 Isopropyl Alcohol

Oral | LD50 | 4570 mg/kg (rat)

Dermal | LD50 | 13400 mg/kg (rab)

Inhalative | LD50/4 h | 30 mg/l (rat)

1330-20-7 Xylene (mix)

Oral | LD50 | 8700 mg/kg (rat)

Dermal | LD50 | 2000 mg/kg (rab)

Inhalative | LD50/4 h | 6350 mg/l (rat)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: Irritating effect.
Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3 Toluene

3

67-63-0 Isopropyl Alcohol

3

1330-20-7 Xylene (mix)

3

NTP (National Toxicity Program)

None of the ingredients is listed.

SECTION 12: Ecological information

Aquatic toxicity: Hazardous to water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Ecotoxicological effects:
Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

Dispose of in accordance with local, state and federal regulations. Do not puncture, incinerate or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

SECTION 14: Transport information

UN-Number UN1950
DOT Consumer Commodity ORM-D
ADR Aerosols, flammable
Transport hazard class(es): 1950 Aerosols
Class 2.1
Marine pollutant: No
Special precautions for user: Warning Gases
EMS number: F-D, S-U
Quantity limitations: On passenger aircraft/rail 75 kg
On cargo aircraft only: 150 kg
ADR
Excepted quantities (EQ): Code: E0
Not permitted as Excepted Quantity
IMDG
Limited quantities (LQ): 1L
Excepted quantities (EQ): Code: E0
Packaging Group: --
UN "Model Regulator": UN1950, Aerosols, 2.1

SECTION 15: Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product is listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3 Toluene

67-63-0 Isopropyl Alcohol

1330-20-7 Xylene (mix)

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CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

1333-86-4	Carbon Black
100-41-4	Ethyl Benzene

California Proposition 65 chemicals known to cause developmental toxicity: 108-88-3 Toluene

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

EPA:

67-64-1	Acetone	
108-88-3	Toluene	II
1330-20-7	Xylene (mix)	I

SECTION 16: Other information

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief on the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Material should be used within a reasonable period of time as materials change with age. The customer and or user, upon receipt of material, accept full responsibility for said product.

**** END OF SAFETY DATA SHEET ****

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 21.08.2015

Revised On: 21.08.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Trade name: Bender Flat Black Paint, Aerosol 

Article number: IG0E003

Sector of Use: Industrial uses: Uses of substances as such or in preparations at industrial sites
Consumer uses: Private households / general public / consumers

Product category: Paints

Manufacturer/Supplier: Bender's Wholesale Dist., Inc.
P.O. Box 1407
Elkhart, IN 46515
phone: (574) 264-4409

Emergency telephone number: (800) 424-9300

SECTION 2: Hazards Identification

Classification of the substance or mixture

Flam. Aerosol 1: Extremely flammable aerosol.

Press. Gas: Contains gas under pressure; may explode if heated.


Skin Irrit. 2: Causes skin irritation.

Eye Irrit. 2A: Causes serious eye irritation.

Repr. 2: Suspected of damaging fertility or the unborn child.

STOT SE 3: May cause drowsiness or dizziness.

STOT RE 2: May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms: 

Signal word: Danger

Hazard statements: Extremely flammable aerosol.
Contains gas under pressure: may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Use only outdoors or in a well ventilated area.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF INGESTED: Rinse mouth with water. Do not induce vomiting.
IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
Protect from sunlight. Do not expose to temperatures exceeding 122° F (50° C).
Store locked up in a well ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	Acetone	25 - 35%
74-98-6	Propane	10 - 20%
106-97-8	N-Butane	10 - 20%
1317-65-3	Calcium Carbonate	5 - 10%
108-88-3	Toluene	5 - 10%
64742-89-8	VM & P Naptha	5 - 10%
67472-47-8	Mineral Spirits	1 - 5%
1330-20-7	Xylene (mix)	1 - 5%
108-65-6	PM Acetate	1 - 5%

SECTION 4: First aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects: Dizziness

Indication of any immediate medical attention needed: No further relevant information available.

medical attention needed: No further relevant information available.

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Revised On: 21.06.2015

Printing date: 21.06.2015

SECTION 5: Firefighting measures

Extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.
Special Hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: Mount respiratory protective device.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol.
Environmental precautions: Do not allow product to reach sewage system or any water course.
Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13.

SECTION 7: Handling and storage

Precautions for safe handling Use only in well ventilated areas.
Fire/explosion protection: Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.
Storage Requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with limit values that require monitoring at the workplace:

67-64-1 Acetone
 PEL (USA) Long-term value: 2400 mg/m³, 1000 ppm
 REL (USA) Long-term value: 590 mg/m³, 250 ppm
 TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
 Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
 BEI

74-98-6 Propane
 PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 TLV (USA) refer to Appendix F

108-88-3 Toluene
 PEL (USA) Long-term value: 200 ppm
 Ceiling limit value: 300; 500* ppm
 * 10-min peak per 8-hr shift
 REL (USA) Short-term value: 560 mg/m³, 150 ppm
 Long-term value: 375 mg/m³, 100 ppm
 TLV (USA) Long-term value: 75 mg/m³, 20 ppm
 BEI

106-97-8 N-Butane
 REL (USA) Long-term value: 1900 mg/m³, 800 ppm
 TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

108-65-6 PM Acetate
 WEEL (USA) Long-term value: 50 ppm

1330-20-7 Xylene (mix)
 PEL (USA) Long-term value: 435 mg/m³, 100 ppm
 REL (USA) Short-term value: 655 mg/m³, 150 ppm
 Long-term value: 435 mg/m³, 100 ppm
 TLV (USA) Short-term value: 651 mg/m³, 150 ppm
 Long-term value: 434 mg/m³, 100 ppm
 BEI

Ingredients with biological limit values:

67-64-1 Acetone
 BEI (USA) 50 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Acetone (nonspecific)

108-88-3 Toluene
 BEI (USA) 0.02 mg/L
 Medium: blood
 Time: prior to last shift of workweek
 Parameter: Toluene
 0.03 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Toluene

(Continued on page 3)

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Ingredients with biological limit values: (Continued)

108-88-3 Toluene (Continued)

0.03 mg/g creatinine
Medium: urine
Time: end of shift

1330-20-7 Xylene (mix)

BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

Hygienic protection: Immediately remove all soiled clothes and contaminated clothing.
Wash hands after use.
Avoid contact with eyes and skin.
Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure conditions exist, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles.

SECTION 9: Physical and chemical properties

Appearance: Aerosol
Odor: Aromatic.
Odor threshold: Not determined.

pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: -47°F (-44 °C)

Flash point: -2°F (-19 °C)
Flammability (solid, gas): Extremely flammable.

Decomposition temperature: Not determined.

Auto-igniting: Product is not selfigniting.

Danger of explosion: In use, may form flammable/explosive vapor-air mixture.

Lower Explosion Limit: 1,5 Vol %

Upper Explosion Limit: 10,9 Vol %

Vapor pressure: Not determined.

Relative Density: Between 0.77 and 0.85 (Water = 1.00)

Vapor density: Not determined.

Evaporation rate: Not applicable.

Partition coefficient: n-octanol/water: Not determined.

Solubility: Not determined.

Viscosity: Not determined.

VOC content: 4.25 lb/gal / 509.7 g/l

VOC content (less exempt solvents): 50.5%

MIR Value: 0.90

Solids Content: 19.3%

SECTION 10: Stability and reactivity

Reactivity: Stable at normal temperatures.

Conditions to avoid: Do not allow can to exceed 120°F. Do not warehouse in subfreezing temperatures.

Chemical Stability: Not fully evaluated.

Possibility of hazardous reactions: No dangerous reactions known.

Incompatible materials: No further relevant information available.

Hazardous decomposition: No dangerous decomposition products known.

SECTION 11: Toxicological information

LD/LC50 values relevant for classification:

106-97-8 N-Butane

Inhalative LC50/4 h 658 mg/l (rat)

108-65-6 PM Acetate

Oral LD50 8500 mg/kg (rat)

Inhalative LD50/4 h 35.7 mg/l (rat)

1330-20-7 Xylene (mix)

Oral LD50 8700 mg/kg (rat)

Dermal LD50 2000 mg/kg (rab)

Inhalative LD50/4 h 6350 mg/l (rat)

(Continued on page 4)

Safety data sheet
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Printing date 2: 09 2015

SECTION 11: Toxicological information (Continued)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: Irritating effect.
Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3 Toluene

1330-20-7 Xylene (mix)

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NTP (National Toxicity Program)

None of the ingredients is listed.

SECTION 12: Ecological information

Aquatic toxicity: Hazardous to water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Ecotoxical effects:
Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

Dispose of in accordance with local, state and federal regulations. Do not puncture, incinerate or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

SECTION 14: Transport information

UN-Number: UN1950
DOT: Consumer Commodity ORM-D
Aerosols, flammable
1950 Aerosols
ADR
Transport hazard class(es):
Class: 2.1
Marine pollutant: No
Special precautions for user: Warning Gases
F-D, S-U
EMS number:
Quantity limitations:
On passenger aircraft/rail 75 kg
On cargo aircraft only: 150 kg
ADR
Excepted quantities (EQ):
Code: E0
Not permitted as Excepted Quantity
IMDG
Limited quantities (LQ):
Code: E0
Excepted quantities (EQ):
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Packaging Group:
UN "Model Regulation": UN1950, Aerosols, 2.1

SECTION 15: Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product is listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3 Toluene

1330-20-7 Xylene (mix)

Packaging Group:

UN "Model Regulation":

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UN1950, Aerosols, 2.1

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

1333-86-4 Carbon Black

100-41-4 Ethyl Benzene

California Proposition 65 chemicals known to cause developmental toxicity: 108-88-3 Toluene

CANADIAN ENVIRONMENTAL
PROTECTION ACT:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

Safety data sheet
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Revised On: 21.06.2015

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EPA:
67-64-1 Acetone
108-88-3 Toluene
1330-20-7 Xylene (mix)

I
II
I

SECTION 16: Other information

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

LD50: Lethal dose, 50 percent
Flam. Gas 1: Flammable gases, Hazard Category 1
Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

***** END OF SAFETY DATA SHEET *****


Safety data sheet
according to 1907/2006/EC, Article 31

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IG05012

Revised On: 21.08.2015

Printing date 21.08.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Trade name:	Bender Gloss White Paint, Aerosol	
Article number:	IG05012	
Sector of Use	Industrial uses: Uses of substances as such or in preparations at industrial sites Consumer uses: Private households / general public / consumers	
Product category	Paints	
Manufacturer/Supplier:	Bender's Wholesale Dist., Inc. P.O. Box 1407 Elkhart, IN 46515 phone: (574) 264-4409	
Emergency telephone number:	(800) 424-9300	

SECTION 2: Hazards Identification

Classification of the substance or mixture

Flam. Aerosol 1	Extremely flammable aerosol.
Press. Gas	Contains gas under pressure; may explode if heated.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
Repr. 2	Suspected of damaging fertility or the unborn child.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.



Signal word	Danger
Hazard statements	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements	Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Use only outdoors or in a well ventilated area. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INGESTED: Rinse mouth with water. Do not induce vomiting. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Protect from sunlight. Do not expose to temperatures exceeding 122° F (50° C). Store locked up in a well ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations.
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SECTION 3: Composition/Information on Ingredients

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	Acetone	25 - 35%
74-98-6	Propane	15 - 25%
106-97-7	N-Butane	10 - 20%
13463-67-7	Titanium Dioxide	5 - 15%
108-88-3	Toluene	5 - 15%
64742-89-8	VM & P Naptha	5 - 15%
64742-47-6	Mineral Spirits	1 - 5%
1330-20-7	Xylene (mix)	1 - 5%
108-85-6	PM Acetate	1 - 5%

SECTION 4: First aid measures

After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Generally the product does not irritate the skin.
After eye contact:	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing:	Rinse mouth with water. Do not induce vomiting.
Most important symptoms and effects:	Dizziness
Indication of any immediate medical attention needed:	No further relevant information available.

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.08.2015

Revised On: 21.08.2015

SECTION 5: Firefighting measures

Extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray.

Special Hazards:

Can form explosive gas-air mixtures.

Protective equipment for firefighters:

Mount respiratory protective device.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.
Do not allow product to reach sewage system or any water course.

Environmental precautions:

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Use only in well ventilated areas.

Fire/explosion protection:

Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray onto a naked flame or any incandescent material.

Storage Requirements:

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with limit values that require monitoring at the workplace:

67-64-1 Acetone

REL (USA) Long-term value: 2400 mg/m³, 1000 ppm

REL (USA) Long-term value: 590 mg/m³, 250 ppm

TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm

Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm

BEI

74-98-6 Propane

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm

TLV (USA) refer to Appendix F

108-88-3 Toluene

REL (USA) Long-term value: 200 ppm

Ceiling limit value: 300; 500* ppm

* 10-min peak per 8-hr shift

REL (USA) Short-term value: 560 mg/m³, 150 ppm

Long-term value: 375 mg/m³, 100 ppm

TLV (USA) Long-term value: 75 mg/m³, 20 ppm

BEI

106-97-8 N-Butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm

TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

1330-20-7 Xylene (mix)

REL (USA) Long-term value: 435 mg/m³, 100 ppm

REL (USA) Short-term value: 655 mg/m³, 150 ppm

Long-term value: 435 mg/m³, 100 ppm

TLV (USA) Short-term value: 651 mg/m³, 150 ppm

Long-term value: 434 mg/m³, 100 ppm

BEI

108-65-6 PM Acetate

WEEL (USA) Long-term value: 50 ppm

Ingredients with biological limit values:

67-64-1 Acetone

BEI (USA) 50 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

108-88-3 Toluene

BEI (USA) 0.02 mg/L

Medium: blood

Time: prior to last shift of workweek

Parameter: Toluene

0.03 mg/L

Medium: urine

Time: end of shift

Parameter: Toluene

(Continued on page 3)

Safety data sheet

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Ingredients with biological limit values: (Continued)**108-88-3 Toluene (Continued)**

BEI (USA) 0.03 mg/g creatinine
Medium: urine
Time: end of shift

1330-20-7 Xylene (mix)

BEI (USA) 1.5 g/g creatinine
Medium: urine
Time: end of shift
Parameter: Methylhippuric acids

Hygienic protection: Immediately remove all soiled clothes and contaminated clothing.
Wash hands after use.
Avoid contact with eyes and skin.
Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure conditions exist, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles.

SECTION 9: Physical and chemical properties

Appearance: Aerosol
Odor: Aromatic.
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: -47°F (-44 °C)

Flash point: -2°F (-19 °C)
Flammability (solid, gas): Extremely flammable.

Decomposition temperature: Not determined.

Auto-igniting: Product is not selfigniting.

Danger of explosion: in use, may form flammable/explosive vapor-air mixture.

Lower Explosion Limit: 1,5 Vol %

Upper Explosion Limit: 10,9 Vol %

Vapor pressure: Not determined.

Relative Density: Between 0.77 and 0.85 (Water = 1.00)

Vapor density: Not determined.

Evaporation rate: Not applicable.

Partition coefficient: n-octanol/water: Not determined.

Solubility: Not determined.

Viscosity: Not determined.

VOC content: 4.22 lb/gal / 505.9 g/l

VOC content (less exempt solvents): 49.1%

MIR Value: 0.90

Solids Content: 20.6%

SECTION 10: Stability and reactivity

Reactivity: Stable at normal temperatures.

Conditions to avoid: Do not allow can to exceed 120°F. Do not warehouse in subfreezing temperatures.

Chemical Stability: Not fully evaluated.

Possibility of hazardous reactions: No dangerous reactions known.

Incompatible materials: No further relevant information available.

Hazardous decomposition: No dangerous decomposition products known.

SECTION 11: Toxicological information**LD/LC50 values relevant for classification:**

106-97-8 N-Butane

Inhalative LC50/4 h > 658 mg/l (rat)

13463-67-7 Titanium Dioxide

Oral LD50 > 20000 mg/kg (rat)

Dermal LD50 > 10000 mg/kg (rab)

Inhalative LD50/4 h > 6.62 mg/l (rat)

(Continued on page 4)

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SECTION 11: Toxicological information (Continued)

LD/LC50 values relevant for classification: (Continued)

1330-20-7	Xylene (mix)	
Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rab)
Inhalative	LD50/4 h	6350 mg/l (rat)
108-65-6	PM Acetate	
Oral	LD50	8500 mg/kg (rat)
Inhalative	LD50/4 h	35.7 mg/l (rat)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: Irritating effect.
Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

108-88-3	Toluene	
13463-67-7	Titanium Dioxide	
1330-20-7	Xylene (mix)	

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NTP (National Toxicity Program)

None of the ingredients is listed.

SECTION 12: Ecological information

Aquatic toxicity: Hazardous to water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Ecotoxicological effects:
Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

Dispose of in accordance with local, state and federal regulations. Do not puncture, incinerate or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

SECTION 14: Transport information

UN-Number	UN1950
DOT	Consumer Commodity ORM-D Aerosols, flammable 1950 Aerosols
ADR	
Transport hazard class(es):	2.1
Class	No
Marine pollutant:	Warning Gases
Special precautions for user:	F-D, S-U
EMS number:	On passenger aircraft/rail 75 kg On cargo aircraft only: 150 kg
Quantity limitations:	
ADR	
Excepted quantities (EQ):	Code: E0 Not permitted as Excepted Quantity
IMDG	
Limited quantities (LQ):	1L
Excepted quantities (EQ):	Code: E0 Not permitted as Excepted Quantity
Packaging Group:	
UN "Model Regulator":	UN1950, Aerosols, 2.1

SECTION 15: Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product is listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3	Toluene
1330-20-7	Xylene (mix)

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7	Titanium Dioxide
100-41-4	Ethyl-Benzene

California Proposition 65 chemicals known to cause developmental toxicity: 108-88-3 Toluene

(Continued on page 5)

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SECTION 15: Regulatory information (Continued)

**CANADIAN ENVIRONMENTAL
PROTECTION ACT:**

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

EPA:

67-64-1	Acetone
108-88-3	Toluene
1330-20-7	Xylene (mix)

SECTION 16: Other information

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

LD50: Lethal dose, 50 percent
Flam. Gas 1: Flammable gases, Hazard Category 1
Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

***** END OF SAFETY DATA SHEET *****



SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: PB Penetrating Catalyst (Bulk)
Product Code: 128-PB, 5-PB, 55-PB

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Penetrant

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125 - USA
Telephone Number: T (216) 901-5800
F (216) 901-5801

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: ChemTel 800-255-3924
Date of Preparation: Jan 13, 2023

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Flammable Liquid 4
Serious Eye Irritation 2A
Carcinogenicity 2
Aspiration Hazard 1

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word: Danger
Hazard Statement: Combustible liquid. Causes serious eye irritation. Suspected of causing cancer. May be fatal if swallowed and enters airways.
Prevention: Keep away from flames and hot surfaces. – No smoking. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
Response: If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If swallowed: Immediately



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Storage:

call a poison center/doctor. Do NOT induce vomiting.

Disposal:

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents and container in accordance with all local, regional, national and international regulations.

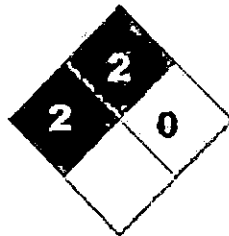
2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

1% of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	UN #	H/F/R/*	CAS No	Wt. %
Distillates (petroleum), hydrotreated light	Not available	Not available	64742-47-8	45- 55
Solvent naphtha (petroleum), heavy aromatic	UN1270	Not available	64742-94-5	20- 30
Distillates (petroleum), hydrotreated heavy naphthenic	Not available	Not available	64742-52-5	20- 30
Naphthalene	UN1334/ UN2304	2/2/0	91-20-3	0.2- 2.1
Dinonylphenol, ethoxylated, phosphated	Not available	Not available	39464-64-7	0.5- 1.5

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

Skin:

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.



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- Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Skin:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Inhalation:** May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.
- Ingestion:** May cause respiratory tract irritation.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- Suitable Extinguishing Media:** Dry chemical, carbon dioxide or foam.
- Unsuitable Extinguishing Media:** Water may be ineffective for extinguishing fire.

5.2 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

- Products of Combustion:** May include, and are not limited to: oxides of carbon, hydrocarbons.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water. Do not use a solid water stream as it may scatter and spread fire. Containers may explode when heated.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

- Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for Cleaning-Up:** Scoop up material and place in a disposal container. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Provide ventilation.



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Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep locked up and out of reach of children. Keep container tightly closed. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in dry, cool, well-ventilated area. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Ingredient	Occupational Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Distillates (petroleum), hydrotreated light	100 ppm	200 mg/m ³
Solvent naphtha (petroleum), heavy aromatic	Not available.	Not available.
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m ³ (mist)	5 mg/m ³ (mist)
Naphthalene	10 ppm; 50 mg/m ³	10 ppm
Dinonylphenol, ethoxylated, phosphated	Not available.	Not available.

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Safety glasses with side-shields.

Skin Protection:

Hand Protection: Wear chemically resistant protective gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



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General Health and Safety Measures:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous / Oily.
Color:	Orange.
Odor:	Heavy aromatic.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	Not available.
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	177.8 °C (352 °F)
Flash Point:	65.6 °C (150 °F)
Evaporation Rate:	>1 (n-butyl acetate = 1)
Flammability:	Flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	>1 (Air = 1)
Relative Density/Specific Gravity:	0.91 (Water = 1)
Solubility:	Negligible.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.
VOC content:	< 50%

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions.



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10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials. Sources of ignition. Excessive water.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents. Strong reducing agents. Moisture.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon, hydrocarbons.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Ingestion: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

Acute Toxicity:

Ingredient	IDLH	LC50	LD50
Distillates (petroleum), hydrotreated light	Not available.	Inhalation >5.2 mg/L 4h, rat	Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit
Solvent naphtha (petroleum), heavy aromatic	Not available.	Inhalation >5.28 mg/L 4h, rat	Oral >5000 mg/kg, rat; Dermal >2000 mg/kg, rabbit
Distillates (petroleum), hydrotreated heavy naphthenic	Not available.	Inhalation >5.0 mg/L 4h, rat	Oral >5000 mg/kg, rat; Dermal >5000 mg/kg, rabbit
Naphthalene	250 ppm	Not available.	Oral 490 mg/kg, rat; Dermal >2500 mg/kg, rat; Dermal >20 g/kg, rabbit
Dinonylphenol, ethoxylated, phosphated	Not available.	Not available.	Not available.

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Not available.	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit



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Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Distillates (petroleum), hydrotreated light	Not listed.
Solvent naphtha (petroleum), heavy aromatic	Not listed.
Distillates (petroleum), hydrotreated heavy naphthenic	Not listed.
Naphthalene	G-A4, I-2B, N-2, CP65
Dinonylphenol, ethoxylated, phosphated	Not listed.

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Based on available data, the classification criteria are not met.

Skin Sensitization: Based on available data, the classification criteria are not met.

STOT-Single Exposure: Based on available data, the classification criteria are not met.

Chronic Health Effects:

Carcinogenicity: Possible carcinogen.

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity:

Developmental: Based on available data, the classification criteria are not met.

Fertility: Based on available data, the classification criteria are not met.

STOT-Repeated Exposure: Based on available data, the classification criteria are not met.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Other Information: Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.



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Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Other disposal recommendations: Handle empty containers with care because residual vapours are flammable.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

DOT	NOM-004-SCT2-1994
NA 1993	Not regulated.

14.2 UN PROPER SHIPPING NAME

DOT	NOM-004-SCT2-1994
Combustible liquid, n.o.s. (Petroleum distillate)	Not applicable.

14.3 TRANSPORT HAZARD CLASS (ES)

DOT	NOM-004-SCT2-1994
3	Not applicable.

14.4 PACKING GROUP

DOT	NOM-004-SCT2-1994
III	Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Mexico: SDS prepared pursuant to NOM-018-STPS-2000.



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SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Distillates (petroleum), hydrotreated light	Not listed.	Not listed.	Not listed.	Not listed.
Solvent naphtha (petroleum), heavy aromatic	Not listed.	Not listed.	Not listed.	Not listed.
Distillates (petroleum), hydrotreated heavy naphthenic	Not listed.	Not listed.	Not listed.	Not listed.
Naphthalene	Not listed.	Not listed.	100	313
Dinonylphenol, ethoxylated, phosphated	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:

This product contains a chemical known to the State of California to cause cancer.

Global Inventories:

Ingredient	USA TSCA
Distillates (petroleum), hydrotreated light	Yes.
Solvent naphtha (petroleum), heavy aromatic	Yes.
Distillates (petroleum), hydrotreated heavy naphthenic	Yes.
Naphthalene	Yes.
Dinonylphenol, ethoxylated, phosphated	Yes.

NFPA-National Fire Protection Association:

Health:	2
Fire:	2
Reactivity:	0

HMIS-Hazardous Materials Identification System:

Health:	2*
Fire:	2
Physical Hazard:	0

- CP65** California Proposition 65
- OSHA (O)** Occupational Safety and Health Administration.
- ACGIH (G)** American Conference of Governmental Industrial Hygienists.
 - A1 - Confirmed human carcinogen.
 - A2 - Suspected human carcinogen.
 - A3 - Animal carcinogen.
 - A4 - Not classifiable as a human carcinogen.
 - A5 - Not suspected as a human carcinogen.
- IARC (I)** International Agency for Research on Cancer.
 - 1 - The agent (mixture) is carcinogenic to humans.
 - 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.



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- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N)

National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: Jan, 13, 2023

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

End of Safety Data Sheet

SAFETY DATA SHEET

This document is not intended for general distribution.

It can be used as the basis for a general distribution document if appropriate changes are made to the identification section.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: BERKEBILE 2+2 GUM CUTTER B-101 -

Product Code: 2902002

MANUFACTURER'S NAME: Berkebile Oil Company
ADDRESS : 1216 Red Brant Road
Somerset, PA 15501 PO Box 715
Fax 814-443-2873
Email info@berkebileoil.com

EMERGENCY PHONE : CHEMTREC 800-424-9300
INFORMATION PHONE : 814-443-1656
Product Use: CLEANING PRODUCT FOR AUTOMOTIVE USES

2. HAZARDS IDENTIFICATION

CLASSIFICATION

Flammable aerosol	1
Gas under pressure	Dissolved gas
Skin Corrosion/Irritation	3
Eye Damage/Irritation	2B
Carcinogenicity	2
Aspiration hazard	1



SIGNAL WORD: Danger

Hazard Statements

Extremely flammable aerosol
Contains gas under pressure; may explode if heated
Toxic if swallowed
May be fatal if swallowed and enters airways
Causes mild skin irritation
Causes eye irritation
Suspected of causing cancer

Precautionary Statements

Keep away from heat/sparks/open flames/hot surfaces – No smoking
Do not spray on an open flame or other ignition source
Pressurized container – Do not pierce or burn, even after use
Wash hands thoroughly after handling
Do not eat, drink or smoke when using this product
Use personal protective equipment as required
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

IF exposed or concerned: Get medical advice/attention
If skin irritation occurs: Get medical advice/attention
If eye irritation persists: Get medical advice/attention
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
Dispose of contents/container to comply with all local, state, and federal regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Percent
ACETONE	67-64-1	52.30
TOLUENE	108-88-3	19.10
XYLENE, MIXED ISOMERS	1330-20-7	15.60
CARBON DIOXIDE	124-38-9	5.00
METHANOL	67-56-1	4.70
ETHYLBENZENE	100-41-4	3.30

4. FIRST AID MEASURES

INHALATION: Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention.

EYE CONTACT: Wash immediately with large volumes of fresh water for at least 15 minutes. Get medical attention.

SKIN CONTACT: Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

INGESTION: Not a likely route of exposure.

Most important symptoms/effects, acute and delayed: Repeated exposure may cause skin dryness or cracking. May cause drowsiness or dizziness.

Indication of immediate medical attention and special treatment needed: None known.

5. FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media: Foam, Alcohol foam, CO₂, Dry chemical, Water fog. Water spray may be ineffective.

Specific hazards arising from the chemical: Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes

Special equipment and precautions for fire-fighters: Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. Wear goggles and use self-contained breathing apparatus. If water is used, fog nozzles are preferred.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Avoid breathing vapors. Ventilate area. Remove all sources of ignition.

Methods and materials for containment and cleaning up: Clean up with absorbent material and place in closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally. See product label for additional information.

Conditions for safe storage, including any incompatibilities: Store and use in cool, dry, well-ventilated areas. Do not store above 120 F.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
ACETONE 67-64-1	PEL-TWA 1000 ppm	TLV-TWA 500 ppm (NIC 200 ppm) TLV-STEL 750 ppm (NIC 500 ppm)	
TOLUENE 108-88-3	TWA: 200 ppm, 8 HOUR CEIL: 300 ppm PEAK: 500 ppm, 10 minute	TWA: 20 ppm 8 hour	
XYLENE, MIXED ISOMERS 1330-20-7	PEL: 100 ppm	TLV: 100 PPM STEL: 150 ppm, 15 minutes	
CARBON DIOXIDE 124-38-9	5000 ppm TWA, 8 hours	5000 ppm TWA; , 8 hours; 30000 ppm STEL, 15 minutes	5000 ppm NIOSH TWA, 10 hours; 30000 ppm NIOSH STEL, 15 minutes
METHANOL 67-56-1	PEL: 200 ppm	TWA: 200 ppm; STEL: 250 ppm	NIOSH: REL: 200 ppm; STEL: 250 ppm;
ETHYLBENZENE 100-41-4	TWA: 100 ppm, 8 hour	TWA: 100 ppm, 8 hour STEL: 125 ppm, 8 hour	

Appropriate engineering controls: Ventilation should be sufficient to prevent inhalation of any vapors. General dilution and/or local exhaust ventilation in volume to keep PEL/TLV of most hazardous ingredient below acceptable limit and lel below stated limit.

Individual protection measures:

Respiratory protection: None under normal use. Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. Self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Protective gloves: None under normal use. Use solvent-resistant for prolonged or repeated contact.

Eye protection: None under normal use. However, use of safety glasses with splash guards or full face shield should be used if indicated.

Other protective clothing or equipment: None under normal use. However, use of solvent-resistant aprons or other clothing is recommended. Eye washes and safety showers in the workplace are recommended. SHOWERS IN THE WORKPLACE ARE RECOMMENDED.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Aerosol product	Odor: Solvent
Vapor Pressure: Not determined	Odor threshold: Not determined
Vapor Density: Heavier than air	pH: Not applicable
Density: 0.826290541	Melting point: Not determined
Freezing point: Not determined	Solubility: Not determined
Boiling point: 0°C	Flash point: Not determined
Evaporation rate: Slower than ether	Flammability: Level 3 Aerosol
Explosive Limits: Not applicable	Partition coefficient (n-octanol/water): Not determined
Autoignition temperature: Not determined	Decomposition temperature: Not determined
Viscosity: Not determined	

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable under normal storage and handling conditions.

Possibility of hazardous reactions: None known.

Incompatible materials:

Acids, Bases, Strong oxidizing agents

Hazardous decomposition products:

Carbon dioxide, carbon monoxide, smoke, fumes, and other products of incomplete combustion.

11. TOXICOLOGICAL INFORMATION

Long-term toxicological studies have not been conducted for this product.

12. ECOLOGICAL INFORMATION

Long-term ecological studies have not been conducted for this product.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Before attempting clean up, refer to other sections of this document for hazard cautionary information.

14. TRANSPORT INFORMATION

By land: DOT Proper Shipping Name: None required per 49 CFR 173.306(i) for products that conform to the Limited Quantity provisions. Commodity shipping description: Cleaning Compound, NOI

By water: DOT & IMDG Proper Shipping Name: UN1950, Aerosols, 2.1, LTD QTY

By air: DOT & IATA Proper Shipping Name: UN1950, Aerosols, flammable, 2.1, LTD QTY (packing instruction Y203 applies)

15. REGULATORY INFORMATION

All ingredients are either listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

Date Prepared: 4/17/2015

Date revised: 2015-04-17

Revision 0

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. BECAUSE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL, WE ASSUME NO RESPONSIBILITY FOR ITS USE.

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Trade Name (as labeled):	Alphathane 5160
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Commercial Sealant
1.3 Company Name:	Alpha Systems LLC
Company Address:	5120 Beck Dr
Company Address Cont:	Elkhart IN 46516
Business Phone:	(800) 462-4698
Website:	www.alphallc.us
1.4 Emergency Telephone Number:	24 HR Emergency Contact: CHEMTREC 800 424-9300 During normal business hours: 574-295-5206
Date of Current Revision:	November 7, 2018
Date of Last Revision:	New

SECTION 2 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a paste that comes in various colors.
Health Hazards: This product may cause eye irritation and skin sensitization. Contains a component reported as a reproductive hazard.
Flammability Hazards: This product is non-flammable.
Reactivity Hazards: None.
Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols: None

EU and GHS Symbols:



Danger!

Signal Word:

2.1 EU Labeling and Classification:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

Components Contributing to Classification: All components

2.2 Label Elements:

GHS Hazard Classifications: Eye Irritation Category 2A
Skin Sensitization Category 1
Reproductive Hazard Category 1B

Hazard Statements: H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H360: May damage fertility or the unborn child.

Prevention Statements: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing vapor/ spray.
P264: Wash contaminated skin thoroughly after handling.
P272: Contaminated work clothing must not be allowed out of the workplace.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response Statements:

P302+P352: If on skin: Wash with plenty of water.
 P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313: If exposed or concerned: Get medical advice/attention.
 P321: Specific treatment (see medical advice on this label).
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P405: Store locked up
 P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
 None applicable

Storage Statements:

Disposal Statements:

2.3 Other hazards:

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS No.	EINECS No.
Proprietary Polymer	10-30%	Proprietary	Proprietary
Limestone	10-30%	1317-65-3	215-279-6
Titanium Dioxide	1-5%	13463-67-7	236-675-5
Proprietary Dehydration Agent	1-5%	Proprietary	Proprietary
Proprietary Adhesion Promoter	<1%	Proprietary	Proprietary
Proprietary Catalyst	<1%	Proprietary	Proprietary
Amorphous Silica	<1%	7631-86-9	231545-4
Chrystalline Silica	1-10%	14808-60-7	238-878-4

Remaining ingredients are non-hazardous or less than 1% in concentration (or less than 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).
 Chemical concentrations and / or identities have been withheld as trade secret.

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye Contact:

Skin Contact:

Inhalation:

Ingestion:

Medical Conditions Generally Aggravated by Exposure:

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.
 Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
 If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
 If product is swallowed, call physician or poison center if you feel unwell. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
 Pre-existing skin or eye problems may be aggravated by prolonged contact.
 This product may cause eye irritation and skin sensitization. Contains a component reported as a reproductive hazard.
 Treat symptoms and eliminate overexposure.

4.2 Symptoms and Effects Both Acute and Delayed:

4.3 Recommendations to Physicians:

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Use the following fire extinguishing materials:

Water Spray: Yes
Foam: Yes
Halon: Yes

Carbon Dioxide: Yes
Dry Chemical: Yes
Other: Any "C" Class

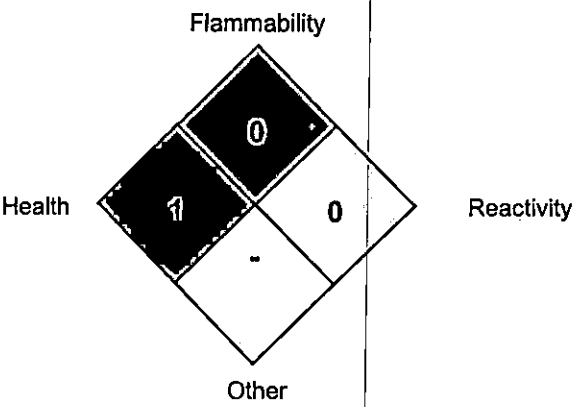


5.2 Unusual Fire and Explosion Hazards:

Explosive Sensitivity to Mechanical Impact:
Explosive Sensitivity to Static Discharge:

No
No

5.3 Special Fire-Fighting Procedures:

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM		HMIS RATING SYSTEM HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
		HEALTH HAZARD (BLUE)		1	
		FLAMMABILITY HAZARD (RED)		0	
		PHYSICAL HAZARD (YELLOW)		0	
PROTECTIVE EQUIPMENT					
EYES	RESPIRATORY	HANDS	BODY		
	See Sect 8		See Sect 8		
For Routine Industrial Use and Handling Applications					
Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard					

SECTION 6 - ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material.
- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

Large Spills:

SECTION 7 - HANDLING AND STORAGE**7.1 Precautions for Safe Handling:**

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling.

7.2 Storage and Handling Practices:

Keep away from incompatible materials.

7.3 Specific Uses:

Various uses.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**8.1 Exposure Parameters:**

Ingredients	CAS No.	OSHA PEL	ACGIH
Proprietary Polymer	Proprietary	500 ppm 1800 mg/m ³	50 ppm
Limestone	1817-65-3	5 mg/m ³ (respirable)	Not Listed
Titanium Dioxide	13463-67-7	10 mg/m ³	15 mg/m ³
Chrystalline Silica	14808-60-7	0.025 mg/m ³	0.05 mg/m ³

8.2 Exposure Controls:**Ventilation and Engineering Controls:**

Use with adequate ventilation to ensure exposure levels are Maintained.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory Protection:

Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Eye Protection:

Safety glasses or goggles are recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are recommended to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

Body Protection:

Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties:**

Appearance (Physical State and Color): Paste which comes in various colors

Odor: Characteristic

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available
 Boiling Point: No data available
 Flash Point: No data available
 Evaporation Rate: No data available
 Flammability (Solid; Gas): No data available
 Upper/Lower Flammability or Explosion Limits: Not applicable
 Vapor Pressure (mm Hg @ 20°C (68° F): No data available
 Vapor Density: No data available
 Relative Density: No data available
 Specific Gravity: No data available
 Solubility in Water: No data available
 Weight per Gallon: No data available
 Partition Coefficient (n-octanol/water): No data available
 Auto-Ignition Temperature: No data available
 Decomposition Temperature: No data available
 Viscosity: No data
9.2 Other Information: No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity: See the other subsections of this section for further details.
10.2 Stability: Stable under conditions of normal storage and use.
10.3 Possibility of Hazardous Reactions: Will not occur.
10.4 Conditions to Avoid: No data available
10.5 Incompatible Substances: No specific material or group of materials is likely to react with the product to produce a hazardous situation.
10.6 Hazardous Decomposition Products: Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:
Toxicity Data: No data available for this product.
Suspected Cancer Agent: Ingredients within this product are found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be cancer-causing agents by these agencies.
 Titanium Dioxide CAS# 13463-67-7
 Crystalline Silica CAS# 14808-60-7
 These chemicals are encapsulated within the overall product and are not anticipated to be inhalation hazards.
Irritancy: This product may cause eye irritation.
Sensitization to the Product: This product is expected to cause skin sensitization.
Germ Cell Mutagenicity: This product does not contain ingredients that are suspected to be a germ cell mutagenic.
Reproductive Toxicity: This product does contain a human reproductive toxicant.
Specific Target Organ Toxicity – Single Exposure: Data not sufficient for classification.
Specific Target Organ Toxicity – Repeated Exposure: Data not sufficient for classification.
Aspiration Hazard: Data not sufficient for classification.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity: No data available for this product.
12.2 Persistence and Degradability: No specific data available on this product.
12.3 Bioaccumulative Potential: No specific data available on this product.
12.4 Mobility in Soil: No specific data available on this product.
12.5 Results of PBT and vPvB Assessment: No specific data available on this product.
12.6 Other Adverse Effects: No data available

12.7 Water Endangerment Class:

At present, there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste Treatment Methods:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

Not determined

SECTION 14 - TRANSPORTATION INFORMATION**14.1 U.S. Department of Transportation (DOT) Shipping Regulations (BULK):**

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number: None
Proper Shipping Name: None
Hazard Class Number and Description: Not Regulated
Packing Group: None
DOT Label(s) Required: None
North American Emergency Response Guidebook Number: None

14.2 Environmental Hazards:**Marine Pollutant:**

The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User:

None

14.4 International Air Transport Association Shipping Information (IATA):

This product is not considered as dangerous goods.

14.5 International Maritime Organization Shipping Information (IMO):

This product is not considered as dangerous goods.

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:****United States Regulations:****U.S. SARA Reporting Requirements:**

The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: No; Fire: No; Reactivity: No

U.S. CERCLA Reportable Quantity:

None

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempt from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

WARNING! This product can expose you to Titanium Dioxide and Crystalline Silica, which is known to the State of California to be a to cause cancer. For more information, go to WWW.P65Warning.ca.gov.

15.2 Canadian Regulations:**Canadian DSL/NDSL Inventory Status:**

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols:

This product is classified per WHMIS Hazardous Product Regulations.

15.3 European Economic Community Information:

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 - ADDITIONAL INFORMATION

Prepared By: Chris Eigbrett
Date of Printing: November 7, 2018

MSDS to GHS Compliance
www.MSDStoGHS.com

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. Alpha Systems LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Alpha Systems LLC assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

1. IDENTIFICATION

Product identifier

Product Name AUTO MAGIC WASH AND WAX CONCENTRATE

Other means of identification

Product Code 56, 56-5, 56-55, 56A

Recommended use of the chemical and restrictions on use

Recommended Use Automotive Care Product. Dilution Required. Follow Technical Data Sheet for Dilution Instructions. For professional use only.

Uses advised against Uses other than recommended use.

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Evercoat
A division of Illinois Tool Works Inc.
6600 Cornell Road
Cincinnati, OH 45242 USA
513-489-7600

24-hour emergency phone number

CHEMTREC: 1-800-424-9300
INTERNATIONAL: 1-703-527-3887

E-mail address: Info@automagic.com

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2

Label elements

Emergency Overview

Signal word

Warning

Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer



Appearance Pink Physical state Liquid Odor Cherry

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Benzenesulfonic acid, (C10-16)	68584-22-5	5 - 10
Cocoamide DEA	68603-42-9	1 - 5
Sodium Hydroxide	1310-73-2	1 - 5
ETHANOL, 2,2'-IMINOBIS-	111-42-2	0.1 - 1

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Call a physician. Do NOT induce vomiting.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use, Use dry chemical, Carbon dioxide (CO₂), Water spray (fog), Alcohol resistant foam

Unsuitable extinguishing media

None

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Use personal protective equipment as required. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

Incompatible materials

Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³
ETHANOL, 2,2'-IMINOBIS- 111-42-2	TWA: 1 mg/m ³ inhalable fraction and vapor S*	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m ³	TWA: 3 ppm TWA: 15 mg/m ³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection

Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pink
Odor	Cherry
Odor threshold	No information available

Property

Values

Remarks • Method

pH	8
Melting point / freezing point	No information available
Boiling point / boiling range	No information available

Flash point	96 °C / 204.8 °F
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Water solubility	No information available
Solubility(ies)	Completely soluble
Partition coefficient	0.45
Autoignition temperature	No information available
Hyphen	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Other Information	
Softening point	No information available
Molecular weight	No information available
VOC content	0%
Density	1.02
Bulk density	No information available
SADT (self-accelerating decomposition temperature)	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available
Chemical stability	Stable under normal conditions
Possibility of Hazardous Reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis.
Ingestion	Ingestion may cause irritation to mucous membranes.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
---------------	-----------	-------------	-----------------

Benzenesulfonic acid, (C10-16) 68584-22-5	= 775 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	-
Cocoamide DEA 68603-42-9	> 5000 mg/kg (Rat)	> 2 g/kg (Rabbit)	-
Sodium Hydroxide 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
ETHANOL, 2,2'-IMINOBIS- 111-42-2	= 780 mg/kg (Rat)	= 11.9 mL/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Cocoamide DEA 68603-42-9	-	Group 2B	-	X
ETHANOL, 2,2'-IMINOBIS- 111-42-2	A3	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Target organ effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5567 mg/kg
ATEmix (dermal) 13087 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical name	Partition coefficient
Benzenesulfonic acid, (C10-16) 68584-22-5	2
ETHANOL, 2,2'-IMINOBIS- 111-42-2	-2.18

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Sodium Hydroxide 1310-73-2	Toxic Corrosive

14. TRANSPORT INFORMATION

Note: This information is not intended to convey all specific regulatory information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

DOT
Proper shipping name Not regulated

IATA
Proper shipping name Not regulated

IMDG
Proper shipping name Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not determined
ENCS	Not determined
IECSC	Complies
KECL	Complies
PICCS	Not determined
AICS	Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
ETHANOL, 2,2'-IMINOBIS- 111-42-2	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Cocoamide DEA 68603-42-9	Carcinogen
Ethanol 64-17-5	Carcinogen Developmental
ETHANOL, 2,2'-IMINOBIS- 111-42-2	Carcinogen
Methanol 67-56-1	Developmental
Sulfuric Acid 7664-98-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Dodecylbenzenesulphonic Acid 27176-87-0	X	X	X
Sodium Hydroxide 1310-73-2	X	X	X
Ethanol 64-17-5	X	X	X
ETHANOL, 2,2'-IMINOBIS- 111-42-2	X	X	X
Benzaldehyde 100-52-7	X	X	X
3-Iodo-2-propynyl butylcarbamate 55406-53-6	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards	1	Flammability	1	Instability	0	
<u>HMIS</u>	Health hazards	1*	Flammability	1	Physical hazards	0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 30-Apr-2021

Disclaimer

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End of Safety Data Sheet

SAFETY DATA SHEET

Section 1. Identification

Product Identifier: RENEW
Other Means of Identification: Cleaner / Descaler
Product Type: Liquid
Recommended Uses and: Acid replacement
Restrictions on use: Do not use with chlorates, nitrates, hypochlorites or alkaline materials. Do not mix directly with dehydrating agents such as acetic anhydride or concentrated sulfuric acid.

Supplier's Details: Anderson Chemical Company
325 South Davis Avenues
Litchfield, MN 55355

Tel: 320-693-2347

Fax: 320-693-8238

www.accomn.com

Emergency Telephone: CHEMTREC, U.S.: 1-800-424-9300
Number

Section 2. Hazards Identification

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the: CORROSIVE TO METALS – Category 1
Substance or mixture ACUTE TOXICITY – Category 4
SKIN CORROSION/IRRITATION – Category 1C
SERIOUS EYE DAMAGE/EYE IRRITATION – Category 1
REPRODUCTIVE TOXICITY – Category 1B

GHS Label Elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: May be corrosive to metals.
Harmful if swallowed
Causes severe skin burns and serious eye damage
May damage fertility or the unborn child (route of exposure: oral)

Precautionary Statements**Prevention:**

Keep only in original container. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves, clothing and eye or face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response:

Absorb spillage to prevent material damage. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse Mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.

Storage:

Store in corrosive resistant containers such as fiberglass, polyethylene, polypropylene or containers with a resistant inner liner. Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified

None Known

Section 3. Composition/Information on Ingredients

Substance/mixture: Mixture

Chemical Name	%	CAS Number
Organic acid salt	Proprietary	-
Proprietary ingredient 2	Proprietary	-
Proprietary ingredient 3	Proprietary	-

The chemical identity and exact percentage of the composition has been withheld as it is a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First Aid Measures**Description of Necessary First Aid Measures****Eye Contact:**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin Contact: Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most Important Symptoms/Effects, Acute and Delayed

Potential Acute Health Effects

- Eye Contact:** Causes serious eye damage.
- Inhalation:** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin Contact:** Causes severe skin burns.
- Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. May damage fertility or the unborn child.

Over Exposure Signs/Symptoms

- Eye Contact:** Adverse symptoms may include the following:
Pain or irritation
Watering
Redness
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Adverse symptoms may include the following:
Pain or irritation
Redness
- Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach
May damage fertility or the unborn child

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

- Notes to Physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific Treatments:** No specific treatment
- Protection of First Aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Fire-Fighting Measures

Extinguishing Media

- Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing:** None known

media

**Specific Hazards Arising:
from the chemical** Heating above 110°C results in an exothermic decomposition with release of CO₂ gas and potentially hydrofluoric acid.

**Hazardous thermal:
decomposition products** Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
hydrofluoric acid
metalloid fluorides
hydrogen cyanide
hydrogen gas

**Special protective actions:
for fire-fighters** No special measures are required.

**Special protective:
equipment for fire-fighters** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

**For non-emergency:
Personnel** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and Materials for Containment and Cleaning Up

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for Safe Handling

Protective Measures: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly

closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on General:
occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for Safe:
Storage, including any
Incompatibilities**

Store below 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls/ Personal Protection

Control Parameters

**Occupational Exposure:
Limits** None

**Appropriate Engineering:
Controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental Exposure:
Controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual Protection Measures

Hygiene Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin Protection

Hand Protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection: Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and Chemical Properties

Appearance

Physical State: Liquid. [Clear with some sediment]
Color: Colorless to Amber
Odor: Mild acrid odor
Odor Threshold: Not available
pH: <1 typical [25g APW in 30g DI Water]
Melting/Freezing Point: <-30°C
Boiling Point/Range: 100°C (212°F)
Flash Point: >93.3°C (>200°F)
Evaporation Rate: >1 (Butyl acetate = 1)
Flammability (solid, gas): Not available
Lower and Upper Explosive: (flammable) Limits: Not available
Vapor Pressure: <0.013kPa (<0.1mmHg) [room temperature]
Vapor Density: >1 [Air = 1]
Relative Density: 1.301-1.381
Solubility: Easily soluble in the following materials: water
Partition Coefficient: n-octanol/water: Not available
Auto-Ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available

Section 10. Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients

Chemical Stability: This product is stable up to 95°C (203°F)

Possibility of Hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid: Do not heat above 110°C as this will result in an exothermic decomposition with rapid release of CO₂ gas and potentially hydrofluoric acid.

Incompatible Materials: Reactive or incompatible with the following materials: oxidizing materials, aluminum and zinc. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Contact with alkaline materials (eg. Aqua ammonia) will generate heat and may produce noxious gas. Do not mix directly with dehydrating agents such as acetic

anhydride or concentrated sulfuric acid. High concentrations of APW will react vigorously with carbonate scales which may carry vapor and so care must be taken to avoid inhalation.

Hazardous Decomposition: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
MP-125	LD50 Oral	Rat	798.1 mg/kg	-

Irritation/Corrosion

Corrosive to the skin (OECD 404)

Sensitization

There is no data available

Carcinogenicity

No components are listed as carcinogens by IARC, ACGIH, OSHA or NTP above the threshold of 0.1%

Specific Target Organ Toxicity (single exposure)

There is no data available

Specific Target Organ Toxicity (repeated exposure)

There is no data available

Aspiration Hazard

There is no data available

Information on the likely: Dermal contact. Eye contact. Inhalation. Ingestion.
routes of exposure

Potential Acute Health Effects

Eye contact:

Causes serious eye damage

Inhalation:

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin Contact:

Causes severe skin burns.

Ingestion:

Harmful if swallowed. Irritating to mouth, throat and stomach.
May damage fertility or the unborn child.

Symptoms related to the physical, chemical and toxicological characteristics

Eye Contact:

Adverse symptoms may include the following:

Pain or irritation

Watering

Redness

Inhalation:

No known significant effects or critical hazards.

Skin Contact:

Adverse symptoms may include the following:

Pain or irritation

redness

Ingestion:

Harmful if swallowed. Irritating to mouth, throat and stomach
May damage fertility or the unborn child.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates There is no data available.

Section 12. Ecological Information

Toxicity There is no data available

Persistence and Degradability: There is no data available

Bioaccumulative Potential: There is no data available

Mobility in Soil

**Soil/water partition coefficient:
(K_{oc})** Not available

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal Considerations

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport Information

	DOT / TDG	IMDG	IATA
UN Number	1760	1760	1760
UN Proper Shipping Name	Corrosive liquid N.O.S. (acid salts)	Corrosive liquid N.O.S. (acid salts)	Corrosive liquid N.O.S. (acid salts)
Transport Hazard Class(es)	8	8	8

Packing Group	III	III	III
Environmental Hazards	No	No	No
Additional Information			

Transport in bulk according to: Not available
 Annex II of MARPOL
 73/78 and the IBC Code

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory Information

United States – Patent No. 8,389,453

U.S. Federal Regulations: United States Inventory (TSCA): All components are listed or exempted

Clean Air Act Section 112: Not listed
 (b) Hazardous Air Pollutants (HAPS)
 Clean Air Act Section 602: Not listed
 Class I Substances
 Clean Air Act Section 602: Not listed
 Class II Substances
 DEA List I Chemicals: Not listed
 Precursor Chemicals)
 DEA List II Chemicals: Not listed
 (Essential Chemicals)

SARA 302/304

Composition/Information on Ingredients

Not listed

SARA 311/312

Classification: Immediate (acute) health hazard

Composition/Information on Ingredients

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Organic Acid Salt	proprietary	No	No	No	Yes	No
Proprietary ingredient 2	proprietary	No	No	No	Yes	No
Proprietary ingredient 3	proprietary	No	No	No	Yes	No

International Lists

National Inventory

Australia (AICS): At least one component is not listed.
 Canada (DSL): All components are listed or exempted.
 China (IECSC): At least one component is not listed.
 Europe (EINECS): At least one component is not listed.

Japan (ENCS): At least one component is not listed.
 New Zealand (NZIoC): At least one component is not listed.
 Philippines (PICCS): At least one component is not listed.
 Republic of Korea (KECL): At least one component is not listed.
 Taiwan (NECI): At least one component is not listed.

Section 16. Other Information

History

Date of issue mm/dd/yyyy: 12/03/2014
 Date of previous issue: None
 Version: 1
 Revised Section(s): Not applicable
 Prepared by: lmt

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Disclaimer: As the handling and use of products under user's conditions are beyond our control, no warranty, expressed or implied, including, but not limited to merchantability or fitness for a particular use, is made concerning this product. The user assumes all risk of use or handling whether or not in accordance with any directions or suggestions of the supplier. Seller shall not be liable to purchaser or any other person for loss or damages directly or indirectly arising from the use of our products, from breach of any warranty or from any other cause, the exclusive remedy against the seller being to require replacement or repair of defective goods.

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):

Synonyms:

CAS No:

1.2 Product Use:

1.3 Company Name:

Company Address:

Company Address Cont:

Business Phone:

Website:

1.4 Emergency Telephone Number:

Date of Current Revision:

Date of Last Revision:

1021, 1016 SELF LEVELING SEALANT ALL COLORS

N/A

Mixture

Various uses

Alpha Systems LLC

5120 Beck Dr

Elkhart IN 46516

(800) 462-4698

www.alphallc.us

24 HR Emergency Contact: CHEMTREC 800 424-9300

During normal business hours: 574-295-5206

June 10, 2019

May 12, 2015

SECTION 2 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a liquid with a characteristic odor.

Health Hazards: This product may cause skin and eye irritation. May cause drowsiness and dizziness. May be an aspiration hazard.

Flammability Hazards: This product is a flammable liquid with a flash point of 16°F (-9°C).

Reactivity Hazards: None.

Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols:



EU and GHS Symbols:



Danger!

Signal Word:

2.1 EU Labeling and Classification:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

EC# 205-563-8 is listed in Annex VI Index# 601-008-00-2

Components Contributing to Classification: Heptane

2.2 Label Elements:

GHS Hazard Classifications:

Flammable Liquid Category 2
Skin Irritant Category 2
Eye Irritant Category 2A
Specific Target Organ Toxicity – Single Exposure Category 3
Aspiration Toxicity Category 1
Aquatic Chronic Category 2
Aquatic Acute Category 2

Hazard Statements:

H225: Highly flammable liquid and vapour
H315: Causes skin irritation
H319: Causes serious eye irritation
H336: May cause drowsiness or dizziness
H304: May be fatal if swallowed and enters airways
H401: Toxic to aquatic life
H411: Toxic to aquatic life with long lasting effects.

Prevention Statements:

P210: Keep away from heat/spark/open flame/hot surfaces -- No Smoking
P233: Keep container tightly closed
P240: Ground and bond container and receiving equipment
P241: Use explosion-proof [electrical/ventilating/lighting] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P264: Wash thoroughly after handling.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.

Response Statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378: In case of fire use water, foam, dry chemical, carbon dioxide or halon to extinguish.
P321: Specific treatment (See Section 4 of this SDS).
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331: Do NOT induce vomiting.
P391: Collect spillage.
P403+P233+ P235: Store in well-ventilated place. Keep container tightly closed. Keep cool.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

Storage Statements:

Disposal Statements:

2.3 Health Hazards or Risks From Exposure:

Symptoms of Overexposure by Route of Exposure:

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

Acute:

- Inhalation: Inhalation of vapors may cause drowsiness or dizziness.
- Skin Contact: Skin contact may cause irritation.
- Eye Contact: Contact with eyes may cause serious irritation.
- Ingestion: Ingestion of this product may cause irritation. Aspiration hazard.

Chronic: No data available

Target Organs:

- Acute: Eyes, Skin, Respiratory system
- Chronic: No data available

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS No.	EINECS No.	Hazard Classification
Heptane	10-25%	142-82-5	205-563-8	H225: Flam. Liq. Cat 2, H304: Aspiration Toxicity Cat 1, H315: Skin Irrit. Cat 2, H336: STOT SE Cat 3, H400: Aquatic Acute Cat 1, H410: Aquatic Chronic Cat 1
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

SECTION 4 - FIRST AID MEASURES**4.1 Description of First Aid Measures:****Eye Contact:**

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

Skin Contact:

Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

Inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

Ingestion:

If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

Medical Conditions Generally Aggravated by Exposure:

Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 Symptoms and Effects Both Acute and Delayed:

This product may cause skin and eye irritation. May cause drowsiness and dizziness. May be an aspiration hazard.

4.3 Recommendations to Physicians:

Treat symptoms and eliminate overexposure.

SECTION 5 - FIRE FIGHTING MEASURES**5.1 Fire Extinguishing Materials:**

Use the following fire extinguishing materials:

Water Spray: Yes
Foam: Yes
Halon: Yes

Carbon Dioxide: Yes
Dry Chemical: Yes
Other: Any "C" Class

5.2 Unusual Fire and Explosion Hazards:

Explosive Sensitivity to Mechanical Impact:

No

Explosive Sensitivity to Static Discharge:

Yes

5.3 Special Fire-Fighting Procedures:

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

<p>NFPA RATING SYSTEM</p> <p style="text-align: center;">Flammability</p> <div style="text-align: center;"> </div> <p style="text-align: center;">Other</p> <p style="text-align: right;">Reactivity</p>	<p>HMIS RATING SYSTEM</p> <p>HAZARDOUS MATERIAL IDENTIFICATION SYSTEM</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="background-color: black; color: white;">HEALTH HAZARD (BLUE)</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: black; color: white;">FLAMMABILITY HAZARD (RED)</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="background-color: black; color: white;">PHYSICAL HAZARD (YELLOW)</td> <td style="text-align: center;">0</td> </tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: center;">PROTECTIVE EQUIPMENT</th> </tr> <tr> <th style="width:25%;">EYES</th> <th style="width:25%;">RESPIRATORY</th> <th style="width:25%;">HANDS</th> <th style="width:25%;">BODY</th> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> </tr> </table> <p style="text-align: center;">For Routine Industrial Use and Handling Applications</p>	HEALTH HAZARD (BLUE)	2	FLAMMABILITY HAZARD (RED)	3	PHYSICAL HAZARD (YELLOW)	0	PROTECTIVE EQUIPMENT				EYES	RESPIRATORY	HANDS	BODY		See Sect 8		See Sect 8
HEALTH HAZARD (BLUE)	2																		
FLAMMABILITY HAZARD (RED)	3																		
PHYSICAL HAZARD (YELLOW)	0																		
PROTECTIVE EQUIPMENT																			
EYES	RESPIRATORY	HANDS	BODY																
	See Sect 8		See Sect 8																
<p>Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard</p>																			

SECTION 6 - ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material.
- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

Large Spills:

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Do not handle or store near heat, sparks, or flame.

7.2 Storage and Handling Practices:

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

7.3 Specific Uses:

Various uses.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Heptane	142-82-5	350 mg/m ³	1640 mg/m ³

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection) and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory Protection:

Not required for properly ventilated areas.

Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Eye Protection:

Safety glasses or goggles are required.

If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are required to prevent skin contact.

If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

Body Protection:

Use body protect appropriate to task being performed.

If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties:**

Appearance (Physical State and Color): Liquid

Odor: Characteristic

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: 199°F (93°C).

Flash Point: 16°F (-9°C).

Evaporation Rate: No data available

Flammability (Solid; Gas): No data available

Upper/Lower Flammability or Explosion Limits: Lower: 1.1 Vol % Upper: 6.7 Vol %

Vapor Pressure (mm Hg @ 20°C (68° F): 48 hPa (36 mm Hg)

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: No data available

Solubility in Water: Not miscible or difficult to mix.

Weight per Gallon: No data available

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information:**Solvent content:**

Organic solvents: 22.0 %

VOC content: 22.0 %

286.0 g/l / 2.39 lb/gal

SECTION 10 - STABILITY AND REACTIVITY**10.1 Reactivity:**

This product is not reactive.

10.2 Stability:

Stable under conditions of normal storage and use.

10.3 Possibility of Hazardous Reactions:

Will not occur.

10.4 Conditions to Avoid:

No data available

10.5 Incompatible Substances:

No data available

10.6 Hazardous Decomposition Products:

No data available

SECTION 11 - TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects:****Toxicity Data:**

Hazardous Component	CAS#	LD 50 of Ingredient	LC 50 of Ingredient
Heptane	142-82-5	No data	Inhalation LC 50: 103,000 mg/m ³ 4h

Suspected Cancer Agent:

Ingredients within this product are not found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be cancer-causing agents by these agencies.

Irritancy:

Skin, eye and respiratory irritant.

Sensitization to the Product:

This product is not expected to cause skin sensitization.

Germ Cell Mutagenicity:

This product does not contain ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity:

This product is not expected to be a human reproductive toxicant.

Specific Target Organ Toxicity – Single Exposure:

May cause drowsiness / dizziness.

Specific Target Organ Toxicity – Repeated Exposure:

Data not sufficient for classification.

Aspiration Hazard:

This product may be an aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity:**

Hazardous Component	CAS#	LC50 of Ingredient	EC 50 of Ingredient
Heptane	142-82-5	96 hr LC 50: 375 mg/L	Water flea- 48 hr EC 50: 1.50 mg/L

12.2 Persistence and Degradability:

No specific data available on this product.

12.3 Bioaccumulative Potential:

No specific data available on this product.

12.4 Mobility in Soil:

No specific data available on this product.

12.5 Results of PBT and vPvB Assessment:

No specific data available on this product.

12.6 Other Adverse Effects:

No data available

12.7 Water Endangerment Class:

At present, there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste Treatment Methods:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

Not determined

SECTION 14 - TRANSPORTATION INFORMATION**14.1 U.S. Department of Transportation (DOT) Shipping Regulations (BULK):**

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number:

UN1133

Proper Shipping Name:

Adhesives Solution

Hazard Class Number and Description:

Class 3 Flammable Liquids

Packing Group:

II

DOT Label(s) Required:

Flammable Liquids

North American Emergency Response Guidebook Number:

128

14.2 Environmental Hazards:**Marine Pollutant:**

The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User:

None

14.4 International Air Transport Association Shipping Information (IATA):

This product is considered as dangerous goods.

14.5 International Maritime Organization Shipping Information (IMO):

This product is considered as dangerous goods.

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:****United States Regulations:****U.S. SARA Reporting Requirements:**

The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: No; Fire: Yes; Reactivity: No

U.S. CERCLA Reportable Quantity:

None

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

This product does not contain ingredients on the Proposition 65 Lists.

15.2 Canadian Regulations:**Canadian DSL/NDSL Inventory Status:**

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols:

This product is classified per WHMIS hazardous Product Regulations.

15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 - ADDITIONAL INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)

Date of Printing: June 10, 2019

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. Alpha Systems LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Alpha Systems LLC assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

ASHLAND
SAFETY DATA SHEET
MERCEDES-BENZ PART # BQ1030004

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland P.O. Box 2219 Columbus, OH 43216	Regulatory Information Number Telephone Emergency telephone number	1-800-325-3751 614-790-3333 1-800-ASHLAND (1-800-274-5263)
Product name	Mercedes® Benz G-48 ANTIFREEZE COOLANT	
Product code	798694	
Product Use Description	No data	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, blue

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact

May cause mild skin irritation. Symptoms may include redness and burning of skin. Skin absorption of this material (or a component) may be increased through injured skin.

Ingestion

Swallowing this material may be harmful. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol. Ingestion of medications contaminated

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with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.

Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), Liver, Kidney, Central nervous system, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, pain in the abdomen and lower back, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), lung edema (fluid buildup in the lung tissue), acute kidney failure (sudden slowing or stopping of urine production), liver damage, Convulsions, coma

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: reproductive effects, kidney damage, liver damage, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: liver damage, kidney damage

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Ethylene glycol has caused birth defects in animal studies at high oral doses. However, it did not cause harm to the pregnant animal or to the fetus when applied to the skin of the pregnant animal., This

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material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No.	Concentration
ETHYLENE GLYCOL	107-21-1	>=90-<=100%
DIETHYLENE GLYCOL	111-46-6	>=1.5-<5%
2-ETHYLHEXANOIC ACID, SODIUM SALT	19766-89-3	>=1.5-<5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

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Hazards: Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis. Ingestion or other significant exposure to this material (or a component) may cause metabolic acidosis.

Treatment: This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Carbon dioxide (CO₂), Water spray

Hazardous combustion products

Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, toxic fumes, Hydrocarbons

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

ETHYLENE GLYCOL		107-21-1	
ACGIH	Ceiling Limit Value:	100 mg/m3	Aerosol.
DIETHYLENE GLYCOL		111-46-6	
WEEL	time weighted average	10 mg/m3	

General advice

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These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Maintain eye wash station near work area.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Discard gloves that show tears, pinholes, or signs of wear.

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state
Form

liquid
no data available

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Colour	blue
Odour	mild
Boiling point/boiling range	387.1 °F / 197.3 °C Calculated Phase Transition Liquid/Gas
Melting point/range	no data available
Sublimation point	no data available
pH	(Average) 7.2
Flash point	(>)250 °F / 121 °C
Ignition temperature	no data available
Evaporation rate	no data available
Lower explosion limit/Upper explosion limit	3.2 %(V) / 15.3 %(V) Calculated Explosive Limit
Particle size	no data available
Vapour pressure	3.000 hPa @ 77 °F / 25 °C Calculated Vapor Pressure
Relative vapour density	no data available
Density	(Average) 1.1243 g/cm ³ @ 77.00 °F / 25.00 °C 9.382 lb/gal @ 77.00 °F / 25.00 °C
Bulk density	No data
Water solubility	no data available
Solubility(ies)	no data available
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	no data available
Viscosity, kinematic	no data available
Solids in Solution	no data available
Decomposition temperature	no data available
Burning number	no data available
Dust explosion constant	no data available
Minimum ignition energy	no data available

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

excessive heat

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Incompatible products

Aldehydes, Alkaline earth metals, Alkali metals, Strong acids, strong alkalis, Strong oxidizing agents, Sulphur compounds

Hazardous decomposition products

carbon dioxide and carbon monoxide, Aldehydes, ketones, Organic acids, Alcohols, ethers, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

ETHYLENE GLYCOL : LD 50 Rat: 6,140 mg/kg

DIETHYLENE GLYCOL : LD 50 Rat: 12,565 mg/kg

2-ETHYLHEXANOIC ACID, SODIUM SALT : LD 50 Rat: > 3 g/kg

Acute inhalation toxicity

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : LC Lo Mouse: 130 mg/m³; 2 h

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Acute dermal toxicity

ETHYLENE GLYCOL : LD 50 Rabbit: 9,530 mg/kg

DIETHYLENE GLYCOL : LD 50 Rabbit: 11,890 mg/kg

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

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12. ECOLOGICAL INFORMATION

Biodegradability

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : 92 %
Exposure time: 28 d

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Bioaccumulation

ETHYLENE GLYCOL : Species: Crayfish (Procambarus)
Exposure time: 61 d
Dose: 1,000 mg/l
Bioconcentration factor (BCF): 0.27
Method: Flow through

DIETHYLENE GLYCOL : no data available

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Ecotoxicity effects

Toxicity to fish

ETHYLENE GLYCOL : 96 h LC 50 Bluegill (Lepomis macrochirus): 27,540.00
mg/l Method: Static; Mortality
96 h LC 50 Fathead minnow (Pimephales promelas):
8,050.00 mg/l ; Mortality

DIETHYLENE GLYCOL : 96 h LC 50 Western mosquitofish (Gambusia affinis):
> 32,000.00 mg/l Method: Static; Mortality

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Toxicity to daphnia and other aquatic invertebrates.

ETHYLENE GLYCOL : 48 h LC 50 Water flea (Daphnia magna): > 10,000.00
mg/l Method: Static Mortality

DIETHYLENE GLYCOL : 24 h LC 50 Water flea (Daphnia magna): > 10,000.00

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mg/l Method: Static Mortality

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Toxicity to algae

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : no data available

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Toxicity to bacteria

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : no data available

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Biochemical Oxygen Demand (BOD)

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : no data available

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Chemical Oxygen Demand (COD)

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : no data available

2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

Additional ecological information

ETHYLENE GLYCOL : no data available

DIETHYLENE GLYCOL : no data available

ASHLAND

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2-ETHYLHEXANOIC ACID, SODIUM SALT : no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

U.S. DOT - ROAD

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.	
--	--

SARA Hazard Classification
Acute Health Hazard

SARA 313 Component(s)
ETHYLENE GLYCOL

93.33 %

New Jersey RTK Label Information

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6
2-ETHYLHEXANOIC ACID, SODIUM SALT	19766-89-3
DECANEDIOIC ACID, DISODIUM SALT	17265-14-4

Pennsylvania RTK Label Information

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6
2-ETHYLHEXANOIC ACID, SODIUM SALT	19766-89-3

Notification status

US. Toxic Substances Control Act y (positive listing)

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Australia. Industrial Chemical (Notification and Assessment) Act	n (Negative listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Japan. Kashin-Hou Law List	n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	n (Negative listing)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302) 5357 lbs

Reportable quantity-Components

ETHYLENE GLYCOL 107-21-1 5000 lbs

	HMIS	NFPA
Health	2	2
Flammability	1	1
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Trade Name (as labeled):	DP40
Synonyms:	Non-skinning Butyl Caulk
CAS No:	Mixture
Product number:	Alpha 1040
1.2 Product Use:	Standing seam sealer
1.3 Company Name:	Alpha Systems LLC
Company Address:	5120 Beck Dr
Company Address Cont:	Elkhart IN 46516
Business Phone:	(574) 295-5206
Website:	www.alphallic.us
1.4 Emergency Telephone Number:	CHEMTREC Emergency (800) 424-9300
Date of Current Revision:	February 8, 2016
Date of Last Revision:	New

SECTION 2 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a beige liquid with a slight putrid odor.
Health Hazards: This product may cause eye, skin and respiratory system irritation. May cause drowsiness and dizziness. May be a reproductive hazard.
Flammability Hazards: This product is a non-flammable liquid.
Reactivity Hazards: None.
Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols: None

EU and GHS Symbols:



Danger!

Signal Word:

2.1 EU Labeling and Classification:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

EC# 271-366-9 is not listed in Annex VI

Substances not listed either individually or in group entries must be self-classified.

Components Contributing to Classification: Mineral Spirits

2.2 Label Elements:

GHS Hazard Classifications:	Aspiration Toxicity Category 1
Hazard Statements:	H304: May be fatal if swallowed and enters airways
Precautionary Statements:	None
Response Statements:	P301+P310 IF SWALLOWED: Immediately call a POISON Center/doctor. P331 Do NOT induce vomiting.
Storage Statements:	P405: Store locked up.
Disposal Statements:	P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Health Hazards or Risks From Exposure:**Symptoms of Overexposure by Route of Exposure:**

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

Acute:

- Inhalation: Inhalation of this product may cause irritation.
 Skin Contact: Prolonged skin contact may cause irritation.
 Eye Contact: Contact with eyes may cause irritation.
 Ingestion: Aspiration hazard if swallowed and enters airways.

Chronic: None known

Target Organs:

- Acute: Eyes, Skin, Respiratory system
 Chronic: None known

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS No.	EINECS No.	Hazard Classification
Mineral Spirits	10-15%	68551-17-7	271-366-9	H304: Aspiration Toxicity Cat 1, H413: Aquatic Chronic Cat 4
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 - FIRST AID MEASURES**4.1 Description of First Aid Measures:****Eye Contact:**

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

Skin Contact:

Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

Inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

Ingestion:

If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

Medical Conditions Generally Aggravated by Exposure:

Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 Symptoms and Effects Both Acute and Delayed:

Exposure to skin, eyes and respiratory system may cause irritation.

4.3 Recommendations to Physicians:

Treat symptoms and eliminate overexposure.

SECTION 5 - FIRE FIGHTING MEASURES**5.1 Fire Extinguishing Materials:**

Use the following fire extinguishing materials:

Water Spray: Yes
Foam: Yes
Halon: Yes

Carbon Dioxide: Yes
Dry Chemical: Yes
Other: Any "C" Class

5.2 Unusual Fire and Explosion Hazards:

Explosive Sensitivity to Mechanical Impact:

No

Explosive Sensitivity to Static Discharge:

No

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

5.3 Special Fire-Fighting Procedures:

NFPA RATING SYSTEM		HMIS RATING SYSTEM HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
	<p>Health</p> <p>Reactivity</p> <p>Other</p>	HEALTH HAZARD (BLUE)	2		
		FLAMMABILITY HAZARD (RED)	0		
		PHYSICAL HAZARD (YELLOW)	0		
PROTECTIVE EQUIPMENT					
EYES	RESPIRATORY	HANDS	BODY		
	See Sect 8		See Sect 8		
For Routine Industrial Use and Handling Applications					
Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard					

SECTION 6 - ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material.

Large Spills:

- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Do not handle or store near heat, sparks, or flame.

7.2 Storage and Handling Practices:

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

7.3 Specific Uses:

Standing seam sealer.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**8.1 Exposure Parameters:**

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Mineral Spirits	68551-17-7	Not established	Not established

8.2 Exposure Controls:**Ventilation and Engineering Controls:**

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory Protection:

Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Eye Protection:

Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

Body Protection:

Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties:**

Appearance (Physical State and Color): Beige liquid
 Odor: Slight putrid odor
 Odor Threshold: No data available
 pH: No data available
 Melting/Freezing Point: No data available
 Boiling Point: No data available
 Flash Point: No data available
 Evaporation Rate: No data available
 Flammability (Solid; Gas): No data available
 Upper/Lower Flammability or Explosion Limits: Not applicable
 Vapor Pressure (mm Hg @ 20°C (68° F): No data available
 Vapor Density: No data available
 Relative Density: No data available
 Specific Gravity: 1.5
 Solubility in Water: None
 Weight per Gallon: No data available
 Partition Coefficient (n-octanol/water): No data available
 Auto-Ignition Temperature: No data available
 Decomposition Temperature: No data available
 Viscosity: No data available

9.2 Other Information:

No data available

SECTION 10 - STABILITY AND REACTIVITY**10.1 Reactivity:**

This product is not reactive.

10.2 Stability:

Stable under conditions of normal storage and use.

10.3 Possibility of Hazardous Reactions:

Will not occur.

10.4 Conditions to Avoid:

Avoid heat, sparks and flame.

10.5 Incompatible Substances:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide.

SECTION 11 - TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects:****Toxicity Data:**

No specific data available on this product.

Suspected Cancer Agent:

Ingredients within this product are not found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be cancer-causing agents by these agencies.

Irritancy:

This product is not expected to be a skin, eye or respiratory irritant.

Sensitization to the Product:

This product is not expected to cause skin sensitization.

Germ Cell Mutagenicity:

This product does not contain ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity:

This product is not expected to be a human reproductive toxicant.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity:**

No specific data available on this product.

12.2 Persistence and Degradability:

No specific data available on this product.

12.3 Bioaccumulative Potential:

No specific data available on this product.

12.4 Mobility in Soil:

No specific data available on this product.

12.5 Results of PBT and vPvB Assessment:

No specific data available on this product.

12.6 Other Adverse Effects:

No data available

12.7 Water Endangerment Class:

At present, there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste Treatment Methods:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

Not determined

SECTION 14 - TRANSPORTATION INFORMATION**14.1 U.S. Department of Transportation (DOT) Shipping Regulations (BULK):**

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number:

None

Proper Shipping Name:

None

Hazard Class Number and Description:

Not Regulated

Packing Group:

None

DOT Label(s) Required:

None

North American Emergency Response Guidebook Number:

None

14.2 Environmental Hazards:**Marine Pollutant:**

The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User:

None

14.4 International Air Transport Association Shipping Information (IATA):

This product is not considered as dangerous goods.

14.5 International Maritime Organization Shipping Information (IMO):

This product is not considered as dangerous goods.

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:****United States Regulations:****U.S. SARA Reporting Requirements:**

The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act: None

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: No; Fire: Yes; Reactivity: No

U.S. CERCLA Reportable Quantity:

Reportable Quantity (RQ): None

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

This product does contain ingredients on the Proposition 65 Lists.

None

15.2 Canadian Regulations:**Canadian DSL/NDSL Inventory Status:**

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols:

This product is classified per WHMIS Controlled Product Regulations.

15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 - ADDITIONAL INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)
Date of Printing: February 8, 2016

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. W.F.Young assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, W.F.Young assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1 Trade Name (as labeled):	8011 Water Based Adhesive
Synonyms:	Water based adhesive
CAS No:	Mixture
Product number:	N/A
1.2 Product Use:	Commercial Water Based Adhesive
1.3 Company Name:	Alpha Systems LLC
Company Address:	5120 Beck Dr
Company Address Cont:	Elkhart IN 46516
Business Phone:	(800) 462-4698
Website:	www.alphallic.us
1.4 Emergency Telephone Number:	24 HR Emergency Contact: CHEMTREC 800 424-9300
Date of Current Revision:	During normal business hours: 574-295-5206
Date of Last Revision:	August 22, 2019
	New

SECTION 2 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a white liquid with no odor.
Health Hazards: This product may cause eye, skin and respiratory system irritation. Contains a chemical which is a suspected carcinogen.
Flammability Hazards: This product does not meet the definition of a combustible liquid with a flash point of >200°F.
Reactivity Hazards: None.
Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols: See Section 14

EU and GHS Symbols:



Warning!

Signal Word:

2.1 EU Labeling and Classification:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

EC# 203-545-4 Annex VI Index# 607-023-00-0

Substances not listed either individually or in group entries must be self-classified.

Components Contributing to Classification: Vinyl Acetate Monomer

2.2 Label Elements:

GHS Hazard Classifications:

Carcinogenicity Category 2

Hazard Statements:

H351: Suspected of causing cancer

Prevention Statements:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response Statements:

P308+P313: IF exposed or concerned: Get medical advice/attention.

Storage Statements:

P405: Store locked up.

Disposal Statements:

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other hazards:

None applicable

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS No.	EINECS No.	Hazard Classification
Vinyl Acetate Monomer	0.1-1%	108-05-4	203-545-4	H225: Flammable Liquid Category 2, H332: Acute Tox Cat 4 (Inhalation), H351: Carcinogen Category 2, H335: STOT SE Cat 3,
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

SECTION 4 - FIRST AID MEASURES**4.1 Description of First Aid Measures:****Eye Contact:**

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.

Skin Contact:

Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

Inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

Ingestion:

If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

Medical Conditions Generally Aggravated by Exposure:

Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 Symptoms and Effects Both Acute and Delayed:

Exposure to skin, eyes and respiratory system may cause irritation.

4.3 Recommendations to Physicians:

Treat symptoms and eliminate overexposure.

SECTION 5 - FIRE FIGHTING MEASURES**5.1 Fire Extinguishing Materials:**

Use the following fire extinguishing materials:

Water Spray: Yes
Foam: Yes
Halon: Yes

Carbon Dioxide: Yes
Dry Chemical: Yes
Other: Any "C" Class

5.2 Unusual Fire and Explosion Hazards:

Explosive Sensitivity to Mechanical Impact:

No

Explosive Sensitivity to Static Discharge:

No

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

5.3 Special Fire-Fighting Procedures:

<p style="text-align: center;">NFPA RATING SYSTEM</p> <p style="text-align: center;">Flammability</p> <div style="text-align: center;"> </div> <p style="text-align: center;">Other</p> <p style="text-align: right;">Reactivity</p>	<p style="text-align: center;">HMIS RATING SYSTEM HAZARDOUS MATERIAL IDENTIFICATION SYSTEM</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="background-color: #cccccc;">HEALTH HAZARD (BLUE)</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #cccccc;">FLAMMABILITY HAZARD (RED)</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #cccccc;">PHYSICAL HAZARD (YELLOW)</td> <td style="text-align: center;">0</td> </tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: center;">PROTECTIVE EQUIPMENT</th> </tr> <tr> <th style="width:25%;">EYES</th> <th style="width:25%;">RESPIRATORY</th> <th style="width:25%;">HANDS</th> <th style="width:25%;">BODY</th> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> <td style="text-align: center;"></td> <td style="text-align: center;">See Sect 8</td> </tr> </table> <p style="text-align: center; font-size: small;">For Routine Industrial Use and Handling Applications</p>	HEALTH HAZARD (BLUE)	1	FLAMMABILITY HAZARD (RED)	1	PHYSICAL HAZARD (YELLOW)	0	PROTECTIVE EQUIPMENT				EYES	RESPIRATORY	HANDS	BODY		See Sect 8		See Sect 8
HEALTH HAZARD (BLUE)	1																		
FLAMMABILITY HAZARD (RED)	1																		
PHYSICAL HAZARD (YELLOW)	0																		
PROTECTIVE EQUIPMENT																			
EYES	RESPIRATORY	HANDS	BODY																
	See Sect 8		See Sect 8																
Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard																			

SECTION 6 - ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.
- If liquid was introduced, create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material.
- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

Large Spills:

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Do not handle or store near heat, sparks, or flame.

7.2 Storage and Handling Practices:

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

7.3 Specific Uses:

Commercial Water Based Adhesive.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	ACGIH
Vinyl Acetate Monomer	108-05-4	10 ppm / 30 mg/m ³	10 ppm

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory Protection:

Not required for properly ventilated areas.
Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN 149, or EU member states.

Eye Protection:

Safety glasses or goggles are required.
If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN 166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are required to prevent skin contact.
If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

Body Protection:

Use body protect appropriate to task being performed.
If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties:**

Appearance (Physical State and Color): White liquid

Odor: No odor

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: No data available

Flash Point: >200°F

Evaporation Rate: No data available

Flammability (Solid; Gas): No data available

Upper/Lower Flammability or Explosion Limits: Not applicable

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: No data available

Solubility in Water: Yes

Weight per Gallon: No data available

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: 12,000 - 17,000 cps

9.2 Other Information:

No data available

SECTION 10 - STABILITY AND REACTIVITY**10.1 Reactivity:**

No data available.

10.2 Stability:

Stable under conditions of normal storage and use.

10.3 Possibility of Hazardous Reactions:

Vapours may form explosive mixture in air.

10.4 Conditions to Avoid:

Avoid heat, sparks and flame.

10.5 Incompatible Substances:

No data available.

10.6 Hazardous Decomposition Products:

No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects:****Toxicity Data:**

Vinyl Acetate Monomer: LD50 Oral Rat: 3,500 mg/kg
 LC50 Inhalation Rat: 15,810 mg/m³ 4h
 LD50 Dermal Rabbit: 7,440 mg/kg

Suspected Cancer Agent:

Ingredients within this product are found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be cancer-causing agents by these agencies.

Irritancy:

This product may be a skin, eye or respiratory irritant.

Sensitization to the Product:

This product is not expected to cause skin sensitization.

Germ Cell Mutagenicity:

This product does not contain ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity:

This product is not expected to be a human reproductive toxicant.

Specific Target Organ Toxicity – Single Exposure:

Data not sufficient for classification.

Specific Target Organ Toxicity – Repeated Exposure:

Data not sufficient for classification.

Aspiration Hazard:

May be an aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity:**

No specific data available on this product.

12.2 Persistence and Degradability:

No specific data available on this product.

12.3 Bioaccumulative Potential:

No specific data available on this product.

12.4 Mobility in Soil:

No specific data available on this product.

12.5 Results of PBT and vPvB Assessment:

No specific data available on this product.

12.6 Other Adverse Effects:

No data available

12.7 Water Endangerment Class:

At present, there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste Treatment Methods:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

Not determined

SECTION 14 - TRANSPORTATION INFORMATION**14.1 U.S. Department of Transportation (DOT) Shipping Regulations (BULK):**

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number:

N/A

Proper Shipping Name:

Not Regulated

Hazard Class Number and Description:

N/A

Packing Group:

N/A

DOT Label(s) Required:

N/A

North American Emergency Response Guidebook Number:

N/A

14.2 Environmental Hazards:

Marine Pollutant:

The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User:

None

14.4 International Air Transport Association Shipping Information (IATA):

This product is not considered as dangerous goods.

14.5 International Maritime Organization Shipping Information (IMO):

This product is not considered as dangerous goods.

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:****United States Regulations:****U.S. SARA Reporting Requirements:**

The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act: Vinyl Acetate Monomer CAS# 108-05-4

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: Yes; Fire: Yes; Reactivity: No

U.S. CERCLA Reportable Quantity:

Reportable Quantity (RQ): None

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

This product does contain the following ingredients, which are on the Proposition 65 List, at concentrations <0.1%: Diethanolamine, Acetaldehyde, Benzene, 1,4-Dioxane, Ethylene Oxide.

15.2 Canadian Regulations:**Canadian DSL/NDSL Inventory Status:**

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols:

This product is classified per WHMIS Hazardous Product Regulations.

15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 - ADDITIONAL INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)
Date of Printing: 8/22/2019

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. Alpha Systems assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Alpha Systems assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

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ONAMAX™ SAE 15W40 ENGINE
OIL ON28930

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland
P.O. Box 2219
Columbus, OH 43216

Regulatory Information Number 1-800-325-3751
Telephone 614-790-3333
Emergency telephone 1-800-ASHLAND
(1-800-274-5263)

Product name ONAMAX™ SAE 15W40 ENGINE OIL
Product code ON28930
Product Use Description No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, amber

CAUTION! PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

Potential Health Effects

Exposure routes

Inhalation, Skin contact, Eye Contact, Ingestion

Eye contact

Unlikely to cause eye irritation or injury.

Skin contact

Unlikely to cause skin irritation or injury. Prolonged or repeated contact may dry and crack the skin.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large

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amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:., Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:., stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

Target Organs

No data

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). Used motor oil has been shown to cause skin cancer in laboratory animals continually exposed by repeated applications. Avoid prolonged or repeated skin contact.

Reproductive hazard

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	>=80-<90%

4. FIRST AID MEASURES

Eyes

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If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Foam, Carbon dioxide (CO₂), Water mist

Hazardous combustion products

carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, zinc oxide, Hydrocarbons

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Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid.

Flammability Class for Flammable Liquids
Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Spills of this material are very slippery.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material. Wash walking surfaces with detergent and water to reduce slipping hazard.

Other information

Notify the proper authorities as required that a spill has occurred. Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).
Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory protection

Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

liquid

Form

No data

Colour

amber

Odour

hydrocarbon-like

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Boiling point/boiling range	No data
pH	No data
Flash point	(>)390 °F / 199 °C, Cleveland open cup
Evaporation rate	No data
Explosion limits	1 %(V) 6 %(V)
Vapour pressure	0.01 hPa @ 70.00 °F / 21.11 °C
Vapour density	No data
Density	0.880 g/cm ³ @ 60.1 °F / 15.6 °C 7.4 lb/gal @ 60.1 °F / 15.6 °C
Solubility	negligible in water
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable

Conditions to avoid

excessive heat

Incompatible products

Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, zinc oxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

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DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	LD 50 Rat: > 15 g/kg
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Acute inhalation toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	no data available
---	-------------------

Acute dermal toxicity

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	LD 50 Rabbit: > 5 g/kg
---	------------------------

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

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California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SARA Hazard Classification No SARA Hazards

SARA 313 Component(s)

ZINC COMPOUNDS ZINC COMPOUNDS 1.65%

New Jersey RTK Label Information

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY 64742-54-7
PARAFFINIC
LUBRICANT ADDITIVE
ZINC COMPOUNDS

Pennsylvania RTK Label Information

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY 64742-54-7
PARAFFINIC
LUBRICANT ADDITIVE

Reportable quantity - Components

DISTILLATES (PETROLEUM), 64742-54-7 none
HYDROTREATED HEAVY
PARAFFINIC

	Health	Flammability	Reactivity	Other
HMIS	1	1	0	
NFPA	1	1	0	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).