



## SDS Manual Table of Contents

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# SDS Manual

# Acid



# Safety Data Sheet

## 1. IDENTIFICATION

<b>Product Name:</b> Battery Acid <b>Synonyms:</b> Battery Electrolyte (Acid) , Sulfuric Acid (Dilute)	<b>Manufacturer/Supplier:</b> Johnson Controls Battery Group <b>Address:</b> P.O. Box 590 Milwaukee, WI 53201 US
<b>General Information Number:</b> (800)-333-2222 ext. 3138 <b>Contact Person:</b> Industrial Hygiene & Safety Department	<b>Emergency number:</b> CHEMTREC: 800-424-9300

## 2. HAZARD(S) IDENTIFICATION

Health		Physical	
Skin corrosion/irritation	Category 1	Corrosive to metals	Category 1
Serious eye damage/eye irritation	Category 1		
Carcinogenicity	Category 1A		
Specific target organ toxicity, single exposure	Category 3 Respiratory Tract irritation		

### Label Elements:

<p><b>DANGER!</b>          May be corrosive to metals.          Causes severe skin burns and eye damage.          May cause cancer          May cause respiratory irritation.</p>

### Precautionary Statement

#### Prevention Response

Do not breathe vapor or mist. Wash thoroughly after handling.  
 If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Wash contaminated clothing before reuse. If exposed or concerned: Get medical advice/attention. Absorb spillage to prevent material damage.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Store in corrosive resistant container with a resistant inner line. Store locked up.

Disposal

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS (Chemical/Common Names):	CAS No.:	% by Wt:
Sulfuric Acid (Dilute)	7664-93-9	~35

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. FIRST AID MEASURES

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center or doctor for treatment advice.
Skin contact	Immediately take off all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by treated a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a physician or poison control center 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 lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: flush with water immediately. While flushing, remove clothes which do not adhere to affected areas. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
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	Powder. Foam. Carbon dioxide (CO2)
Unsuitable extinguishing media	Do not use water jet as an extinguisher as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials
General fire hazards	No unusual fire or explosion hazards noted. Not flammable, but reacts with most metals to form flammable hydrogen gas.

### 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment,	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or
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**and emergency preparedness**

vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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**

Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand, or earth and place in containers. Prevent entry into waterways, sewer, basements or confined areas.

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). 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 discharge into drains, water courses, or onto the ground.

**7. HANDLING AND STORAGE**

**Handling**

Do not breathe vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial practices.

**Storage**

Store locked up. Store in original tightly closed container. Store away from incompatible materials. Keep away from heat, sparks, and open flame. (See section 10 of the SDS)

**Other**

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Occupational exposure limits**

US OSHA Table Z-1 Limits for Air Contaminants ( 29 CFR 1910.1000)

Ingredient	CAS Number	Type	Value
Sulfuric Acid (Dilute)	7664-93-9	PEL	1 mg/m <sup>3</sup>

**US ACGIH Threshold Limit Values**

Ingredient	CAS Number	Type	Value	Form
Sulfuric Acid (Dilute)	7664-93-9	TWA	0.2 mg/m <sup>3</sup>	Thoracic Fractions

**US NIOSH: Pocket Guide to Chemical Hazards**

Ingredient	CAS Number	Type	Value
Sulfuric Acid (Dilute)	7664-93-9	TWA	1 mg/m <sup>3</sup>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Engineering Controls (Ventilation):**

Good ventilation required (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 eyewashes station.

**Respiratory Protection:**

NONE REQUIRED UNDER NORMAL HANDLING CONDITIONS

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

**Skin Protection:**

Wear appropriate chemical resistant gloves and clothing.

**Eye Protection:**

Wear safety glasses with side shields (or goggles). Face shield is recommended.

**General Hygiene Considerations:**

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	Liquid
Color	Clear/cloudy liquid
Odor	Slightly acid
Odor Threshold	Not available
pH	Not available
Melting Point	-79.6 °F / -62 °C
Boiling Point	230 °F / 110 °C
Flash Point	Not available
Evaporation Rate (Butyl Acetate = 1)	Not determined
Flammability	Not available
Upper/lower flammability or explosive limits	Not available
Vapor Pressure (mm Hg @ 20 ° C)	11.7
Vapor Density	3.4 (Air = 1)
Relative Density	1.285
Solubility	100%
% Volatile by Weight	0%
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

**10. STABILITY AND REACTIVITY**

Reactivity	This product is stable and non-reactive under normal conditions of use, storage, and transport.
Stability	Material is stable under normal conditions.
Conditions to Avoid	Keep away from heat, sparks, open flames, and/or hot surfaces. No smoking. Contact with incompatible materials.
Incompatibility (materials to avoid)	Strong reducing agents. Reacts with organic materials. Combustibles. Metals. Carbides. Nitrates.
Hazardous Decomposition Products	Sulfur dioxide (SO <sub>2</sub> ) Sulfur trioxide. Hydrogen.
Hazardous Polymerization	Will not occur.

**11. TOXICOLOGICAL INFORMATION****INFORMATION ON LIKELY ROUTES OF EXPOSURE**

Inhalation	Corrosive. Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Inhalation of vapors may cause lung edema. Prolonged inhalation may be harmful.
Skin Contact	Causes severe skins burns. Prolonged skin contact may cause dermatitis.

**Eye Contact** Causes serious eye damage  
**Ingestion** Causes digestive tract burns.  
**Symptoms related to the physical, chemical, and toxicological characteristics** Burning pain and severe corrosive skin damage. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**INFORMATION ON TOXICOLOGICAL EFFECTS**

**Acute Effects** Occupational exposure to the substance or mixture may cause adverse effects.  
**Chronic Effects** Prolonged inhalation may be harmful. Sulfuric acid fumes: Prolonged, repeated exposure to acid fumes/mists may cause chronic bronchitis, irritation of skin, mucous membranes and gastrointestinal tract and erosion of the teeth.

Constituents	Species	Test Results
Sulfuric Acid absorbed in glass-fiber material (CAS 7664-93-9)		
Acute Oral LD50	Rat	2140 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns	
<b>Serious eye damage/eye irritation</b>	Causes severe skin burns	
<b>Respiratory Sensitization</b>	No data available	
<b>Skin Sensitization</b>	Not a skin sensitizer	
<b>Germ Cell Mutagenicity</b>	No data available to indicate product or any components present a greater than 0.1% are mutagenic or genotoxic	

**CARCINOGENICITY**

Mist: May cause cancer by inhalation

ACGIH Group A2 (Suspected human carcinogen)

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Sulfuric Acid (CAS 7664-93-9) 1 Carcinogenic to humans

**NTP Report on Carcinogens**

Sulfuric Acid (CAS 7664-93-9) Known to be a Human Carcinogen.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

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 classified.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** This 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.

**Persistence and Degradability** No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**Other adverse effects** No other adverse environmental effects are expected from this component.

### 13. DISPOSAL CONSIDERATIONS

<b>Disposal Instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazardous waste code:</b>	D002: Corrosive waste The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or lines may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal Instructions)
<b>Contaminated packaging</b>	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

<b>United States DOT:</b>	
<b>UN Number</b>	UN2796
<b>UN Proper shipping Name</b>	Battery fluid, acid (Sulfuric acid (Dilute) RQ=2857 lbs)
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
Label(s)	8
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS, and emergency procedures before handling.
<b>Special provisions</b>	A3, A7, B2, B15, IB2, N6, N34, T8, TP2, TP12
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242
<b>IATA</b>	
<b>UN Number</b>	UN2796
<b>UN Proper shipping Name</b>	Battery fluid, acid (Sulfuric acid (Dilute))
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No
<b>ERG Code</b>	8L
<b>Special precautions for user</b>	Read safety instructions, SDS, and emergency procedures before handling.
<b>IMDG</b>	
<b>UN Number</b>	UN2796
<b>UN Proper shipping Name</b>	Battery fluid, acid (Sulfuric acid (Dilute))
<b>Transport hazard class(es)</b>	
Class	8
Subsidiary risk	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
Marine pollutant	No
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS, and emergency procedures before handling.

## 15. REGULATORY INFORMATION

### US Federal Regulations

All components are on the U.S. EPA TSCA Inventory List

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

### TSCA

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Sulfuric Acid (Dilute)

LISTED

(CAS 7664-93-9)

**Superfund Amendment and Reauthorization Act of 1986 (SARA)**

**Hazard Categories**

Immediate Hazard – Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

**SARA 302 Extremely hazardous substance**

Chemical Name	CAS Number	Reportable Quantity	Threshold Planning Quantity	Threshold Planning Quantity – Lower value	Threshold Planning Quantity – upper value
Sulfuric Acid (dilute)	7664-93-9	1000	1000 lbs		
Section 311/312	Yes				

**Hazard Chemical:**

**Section 313 (TRI Reporting)**

**Chemical Name**

**CAS Number**

**% by weight**

Sulfuric Acid (Dilute)

7664-93-9

~35

**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)**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**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**

Sulfuric Acid (Dilute) (CAS 6552

7664-93-9)

**Drug Enforcement Administration (DEA), List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Sulfuric Acid (Dilute) (CAS 20 % WV

7664-93-9)

**DEA Exempt Chemical Mixtures Code Number**

Sulfuric Acid (Dilute) (CAS 6552

7664-93-9)

**US State Regulations**

**US, Massachusetts RTK – Substance List**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**US New Jersey Worker and Community Right-to-know Act**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**US Pennsylvania Worker and Community Right-to-know Law**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**US Rhode Island RTK**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**US. California Proposition 65**

WARNING: This product contains chemicals known to the State of California to cause cancer.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Sulfuric Acid (Dilute) (CAS 7664-93-9)

**International Inventories**

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**

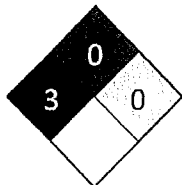
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Version #: 02

Further information: NFPA Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3=Serious 4 = Severe

NFPA ratings



**Disclaimer**

Johnson Controls Battery Group, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.





SDS Manual

Adhesives



## SDS Manual

# Adhesives

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## Safety Data Sheet

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<b>Issue Date:</b>	08/14/14	<b>Supersedes Date:</b>	08/14/14

### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Barrier Moldable Putty + Pads

#### Product Identification Numbers

44-0042-9351-8, 44-0042-9352-6, 98-0400-5524-0, 98-0400-5525-7, 98-0400-5526-5, 98-0400-5547-1

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Passive fire protection in industrial applications

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A.

Skin Sensitizer: Category 1.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Exclamation mark |

##### Pictograms

**Hazard Statements**

Causes serious eye irritation.  
May cause an allergic skin reaction.

**Precautionary Statements****Prevention:**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wear protective gloves and eye/face protection.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.

**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: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

None.

4% of the mixture consists of ingredients of unknown acute dermal toxicity.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Zinc Borate 2335	138265-88-0	10 - 30 Trade Secret *
Polymer NJTS Reg. No. 04499600-7177	Trade Secret*	10 - 30 Trade Secret *
Polybutylene	9003-29-6	10 - 30 Trade Secret *
Sodium Silicate	1344-09-8	10 - 30 Trade Secret *
Methyl Esters of Hydrogenated Rosin	8050-15-5	10 - 30 Trade Secret *
Melamine Phosphate	41583-09-9	7 - 13 Trade Secret *
Glass Wool	65997-17-3	3 - 7 Trade Secret *
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4	1 - 5 Trade Secret *
Alpha-Methylstyrene-Isoamylene-Piperylene Polymer	62258-49-5	1 - 5 Trade Secret *
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	1 - 5 Trade Secret *
Water	7732-18-5	1 - 5 Trade Secret *
Rayon Fiber	None	1 - 5 Trade Secret *
Amorphous Silica	112945-52-5	1 - 5 Trade Secret *
Rosin	8050-09-7	< 1 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

\*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. If you feel unwell, get medical attention.

#### Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

#### Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### If Swallowed:

Rinse mouth. If you feel unwell, get 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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Non-combustible. Use a fire fighting agent suitable for surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. 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.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate

authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Keep out of reach of children. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

**7.2. Conditions for safe storage including any incompatibilities**

No special storage requirements.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
SILICA, AMORPHOUS	112945-52-5	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	
Glass Wool	65997-17-3	Manufacturer determined	TWA(as dust):10 mg/m3	
Rosin	8050-09-7	ACGIH	Limit value not established:	Cntrl all exposr-low as possib, Dermal/Respiratory Sensitizer

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**

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:  
 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.

Gloves made from the following material(s) are recommended: Neoprene

Nitrile Rubber

Natural Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - Neoprene

Apron - Nitrile

### 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 air-purifying respirator suitable for organic vapors and particulates

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:	Solid
Specific Physical Form:	Putty
Odor, Color, Grade:	Red putty with pine-like odor
Odor threshold	<i>No Data Available</i>
Melting point	<i>Not Applicable</i>
Flash Point	No flash point
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Specific Gravity	1.25 [ <i>Ref Std: WATER=1</i> ]
Solubility In Water	<i>No Data Available</i>
Solubility- non-water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Volatile Organic Compounds	< 1 % weight
VOC Less H2O & Exempt Solvents	< 1 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

**10.5. Incompatible materials**

None known.

**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:**

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

**Skin Contact:**

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

**Eye Contact:**

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion:**

May be harmful if swallowed.

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

**Carcinogenicity:**

Ingredient	C.A.S. No.	Class Description	Regulation
Generic: GLASS FILAMENTS	65997-17-3	Anticipated human carcinogen	National Toxicology Program Carcinogens
Generic: GLASS FILAMENTS	65997-17-3	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

**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	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 10,000 mg/kg
Zinc Borate 2335	Ingestion	Rat	LD50 > 10,000 mg/kg



Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
Polybutylene	Dermal	Rat	LD50 > 10,250 mg/kg
Polybutylene	Ingestion	Rat	LD50 > 34,600 mg/kg
Polymer NJTS Reg. No. 04499600-7177	Dermal	Rabbit	LD50 > 2,000 mg/kg
Polymer NJTS Reg. No. 04499600-7177	Ingestion	Rat	LD50 > 5,000 mg/kg
Melamine Phosphate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Melamine Phosphate	Ingestion	Rat	LD50 > 4,000 mg/kg
Glass Wool	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass Wool	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Butadiene-Styrene-Meta-Divinylbenzene Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Amorphous Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Amorphous Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Amorphous Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Alpha-Methylstyrene-Isoamylene-Piperylene Polymer	Ingestion	Rat	LD50 > 40,000 mg/kg
Rosin	Dermal	Rabbit	LD50 > 2,500 mg/kg
Rosin	Ingestion	Rat	LD50 7,600 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Sodium Silicate	Rabbit	Corrosive
Polybutylene	Rabbit	Minimal irritation
Polymer NJTS Reg. No. 04499600-7177		No significant irritation
Glass Wool		No significant irritation
Butadiene-Styrene-Meta-Divinylbenzene Polymer		Minimal irritation
Amorphous Silica	Rabbit	No significant irritation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Mild irritant
Rosin	Rabbit	No significant irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
Sodium Silicate	Rabbit	Corrosive
Polybutylene	Rabbit	Mild irritant
Glass Wool		No significant irritation
Amorphous Silica	Rabbit	No significant irritation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Moderate irritant
Rosin	Rabbit	Mild irritant

#### Skin Sensitization

Name	Species	Value
Sodium Silicate	Mouse	Not sensitizing
Amorphous Silica	Human and animal	Not sensitizing
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human and animal	Sensitizing
Rosin	Guinea pig	Sensitizing

#### Respiratory Sensitization

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human	Some positive data exist, but the data are not sufficient for classification
Rosin	Human	Some positive data exist, but the data are not sufficient for classification

#### Germ Cell Mutagenicity

Name	Route	Value
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Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
Glass Wool	In Vitro	Some positive data exist, but the data are not sufficient for classification
Amorphous Silica	In Vitro	Not mutagenic
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Glass Wool	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Amorphous Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	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
Sodium Silicate	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 200 mg/kg/day	during gestation
Amorphous Silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	blood	All data are negative	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart   liver	All data are negative	Rat	NOAEL	8 weeks

					1,259 mg/kg/day	
Polybutylene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.07 mg/l	2 weeks
Polybutylene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.7 mg/l	2 weeks
Glass Wool	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure
Amorphous Silica	Inhalation	respiratory system   silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	nervous system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days

**Aspiration Hazard**

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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.

EPA Hazardous Waste Number (RCRA): Not regulated

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

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 Borate 2335 (ZINC COMPOUNDS)	138265-88-0	10 - 30

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

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

### 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: 1 Instability: 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.

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Issue Date:	08/14/14	Supersedes Date:	08/14/14

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<b>Document Group:</b>	21-6495-2	<b>Version Number:</b>	1.00
<b>Issue Date:</b>	12/31/14	<b>Supersedes Date:</b>	Initial Issue

### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Barrier Packing Material

#### Product Identification Numbers

98-0400-5529-9, 98-0400-5549-7

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Passive Fire Protection

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Vitreous Silicate and Fibrous Glass	65997-17-3	90 - 100

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Odor, Color, Grade:	Grey-green, odorless material with a wool type appearance.
Odor threshold	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>

Flash Point	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Specific Gravity	2.5 - 3.0 [Ref Std: WATER=1]
Solubility in Water	Negligible
Solubility- non-water	<i>Not Applicable</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>Not Applicable</i>
Volatile Organic Compounds	0 % weight
Percent volatile	0 %
VOC Less H2O & Exempt Solvents	0 g/l

### SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

### SECTION 11: Toxicological information

**Inhalation:**

No health effects are expected

**Skin Contact:**

No health effects are expected

**Eye Contact:**

No health effects are expected

**Ingestion:**

No health effects are expected

**Additional Information:**

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

### SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

### SECTION 13: Disposal considerations

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

### 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

### Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.

## SECTION 16: Other information

### NFPA Hazard Classification

**Health: 1 Flammability: 0 Instability: 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 Physical Hazard: 0 Personal Protection: A**

Hazardous Material Identification System (HMIS® III) 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® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

<b>Document Group:</b>	21-6495-2	<b>Version Number:</b>	1.00
<b>Issue Date:</b>	12/31/14	<b>Supersedes Date:</b>	Initial Issue

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<b>Document Group:</b>	20-1970-1	<b>Version Number:</b>	2.00
<b>Issue Date:</b>	12/11/14	<b>Supersedes Date:</b>	Initial Issue

### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Barrier Pass Through Device

#### Product Identification Numbers

98-0400-5513-3, 98-0400-5514-1, 98-0400-5515-8, 98-0400-5516-6, 98-0400-5517-4, 98-0400-5518-2, 98-0400-5519-0, 98-0400-5520-8, 98-0400-5539-8, 98-0400-5540-6, 98-0400-5541-4, 98-0400-5542-2, 98-0400-5543-0, 98-0400-5544-8, 98-0400-5545-5, 98-0400-5546-3

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Firestop penetrations through walls and doors.

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
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Steel Shell	Unknown	70 - 90
Mounting Flange	Unknown	10 - 20
Intumescent Material	Unknown	1 - 10

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustibile material such as water or foam.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>General Physical Form:</b>	Solid
<b>Odor, Color, Grade:</b>	Red colored steel shell
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	<i>Not Applicable</i>
<b>Solubility in Water</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	0 % weight
<b>VOC Less H2O &amp; Exempt Solvents</b>	0 g/l

## SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

### SECTION 13: Disposal considerations

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

### 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

#### Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.

For additional regulatory information on this product, refer to [www.3M.com/regs](http://www.3M.com/regs).

### SECTION 16: Other information

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## Article Information Sheet

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<b>Document Group:</b>	16-3772-7	<b>Version Number:</b>	2.00
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### SECTION 1: Identification

#### 1.1. Product identifier

3M(TM) Fire Barrier Pillows FB249, Small; FB269, Medium; FB369, Large; 3M(TM) Fire Barrier Self-Locking Pillows FB249SL, Small; FB269SL, Medium; FB369SL, Large

#### Product Identification Numbers

98-0400-5421-9, 98-0400-5422-7, 98-0400-5423-5, 98-0400-5472-2, 98-0400-5473-0, 98-0400-5474-8

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Fire Protection

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
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3M(TM) Fire Barrier Pillows FB249, Small; FB269, Medium; FB369, Large; 3M(TM) Fire Barrier Self-Locking Pillows FB249SL, Small; FB269SL, Medium; FB369SL, Large 12/11/14

Expantral Flexible Intumescent Strips	Mixture	40 - 60
Fiber Mineral Wool	Mixture	35 - 55
Adhesive	Mixture	1 - 3
Plastic Film	9002-88-4	1 - 3
Hook & Loop Fastner	Mixture	0 - 3
Tape	Mixture	0 - 2

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Odor, Color, Grade:	Mineral fiber pillow with intumescent covering in a red plastic pillow.
Odor threshold	<i>Not Applicable</i>
Flash Point	<i>No Data Available</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Specific Gravity	<i>No Data Available</i>
Solubility in Water	Nil
Solubility- non-water	<i>Not Applicable</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>Not Applicable</i>
Percent volatile	0 %
VOC Less H2O & Exempt Solvents	0 g/l

## SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

## SECTION 13: Disposal considerations



3M(TM) Fire Barrier Pillows FB249, Small; FB269, Medium; FB369, Large; 3M(TM) Fire Barrier Self-Locking Pillows FB249SL, Small; FB269SL, Medium; FB369SL, Large 12/11/14

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

## 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

### Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.

California Proposition 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
Titanium Dioxide	13463-67-7	Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

For additional regulatory information on this product, refer to [www.3M.com/regs](http://www.3M.com/regs).

## SECTION 16: Other information

### NFPA Hazard Classification

Health: 0 Flammability: 0 Instability: 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: 0 Flammability: 0 Physical Hazard: 0 Personal Protection: E

Hazardous Material Identification System (HMIS® III) 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® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Block Sealant FB 136

#### Product Identification Numbers

98-0400-5626-3, 98-0400-5627-1, 98-0400-5631-3

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Fire Protection

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2B.

Skin Corrosion/Irritation: Category 2.

Carcinogenicity: Category 1A.

Specific Target Organ Toxicity (respiratory irritation): Category 3.

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

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms



**Hazard Statements**

Causes eye irritation.  
 Causes skin irritation.  
 May cause respiratory irritation.  
 May cause cancer.

Causes damage to organs through prolonged or repeated exposure:  
 respiratory system |

**Precautionary Statements**

**General:**

Keep out of reach of children.

**Prevention:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves.  
 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 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 it before reuse.  
 IF exposed or concerned: Get medical advice/attention.

**Storage:**

Keep container tightly closed.  
 Store locked up in a well-ventilated place.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

None.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	40 - 70 Trade Secret *
Kaolin	1332-58-7	30 - 60 Trade Secret *
Sodium Silicate	1344-09-8	10 - 30 Trade Secret *
Titanium Dioxide	13463-67-7	0.5 - 1.5 Trade Secret *

Quartz Silica	14808-60-7	0.1 - 1.0 Trade Secret *
Carbon Black	1333-86-4	< 0.1 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. If you feel unwell, get medical attention.

#### Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. 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:

Rinse mouth. If you feel unwell, get 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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. 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.

**6.3. Methods and material for containment and cleaning up**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (gloves, respirators, etc.) as required.

**7.2. Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep container tightly closed.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Kaolin	1332-58-7	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
KAOLIN, TOTAL DUST	1332-58-7	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m3	A3: Confirmed animal carcin.
Carbon Black	1333-86-4	CMRG	TWA:0.5 mg/m3	
Carbon Black	1333-86-4	OSHA	TWA:3.5 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	CMRG	TWA(as respirable dust):5 mg/m3	
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Quartz Silica	14808-60-7	OSHA	TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)	

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  
 CEL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**

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:

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.

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

#### 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 air-purifying respirator suitable for particulates

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:	Solid
Specific Physical Form:	Paste
Odor, Color, Grade:	Gray, thixotropic paste, with minimal odor
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Boiling Point	<i>Not Applicable</i>
Flash Point	No flash point
Flammability (solid, gas)	Not Classified
Flammable Limits (LEL)	<i>Not Applicable</i>
Flammable Limits (UEL)	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>
Specific Gravity	1.8
Solubility in Water	Nil [Details: Partly soluble in water until heat cured]
Solubility- non-water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Volatile Organic Compounds	< 1 % weight
VOC Less H <sub>2</sub> O & Exempt Solvents	0 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

**10.2. Chemical stability**

Stable.

**10.3. Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

Substance

Condition

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:**

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

May cause additional health effects (see below).

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

May be harmful if swallowed.

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

**Additional Health Effects:**

**Prolonged or repeated exposure may cause target organ effects:**



Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
SILICA, CRYSTAL AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
Carbon Black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Quartz Silica	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

**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 2,000 - 5,000 mg/kg
Kaolin	Dermal		LD50 estimated to be > 5,000 mg/kg
Kaolin	Ingestion	Human	LD50 > 15,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Kaolin	Professional judgement	No significant irritation
Sodium Silicate	Rabbit	Corrosive
Titanium Dioxide	Rabbit	No significant irritation
Quartz Silica	Professional judgement	No significant irritation
Carbon Black	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Kaolin	Professional judgement	No significant irritation
Sodium Silicate	Rabbit	Corrosive
Titanium Dioxide	Rabbit	No significant irritation
Carbon Black	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
Sodium Silicate	Mouse	Not sensitizing
Titanium Dioxide	Human and animal	Not sensitizing

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification
Carbon Black	In Vitro	Not mutagenic
Carbon Black	In vivo	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Kaolin	Inhalation	Multiple animal species	Not carcinogenic
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Quartz Silica	Inhalation	Human and animal	Carcinogenic
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Sodium Silicate	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 200 mg/kg/day	during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Kaolin	Inhalation	pneumoconiosis	Causes damage to organs through	Human	NOAEL NA	occupational

			prolonged or repeated exposure			exposure
Kaolin	Inhalation	pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	blood	All data are negative	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart   liver	All data are negative	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Carbon Black	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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.

EPA Hazardous Waste Number (RCRA): Not regulated

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

### 15.2. State Regulations

Contact 3M for more information.

#### California Proposition 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	None	Carcinogen
Carbon Black	1333-86-4	Carcinogen
Titanium Dioxide	13463-67-7	Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

### 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: 1 Instability: 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.

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SDS Manual

Cement



## SDS Manual

# Cement

- Carlon All-Weather Quickset Cement 50
- Carlon Medium Bodied Gray PVC Solvent Cement 61
- Carlon Multi-Purpose Spray-On Thread Sealer 72
- Carlon Spray-On No-Waste Cement 77
- Carlon Weather-Guard Spray-On Rubber Film 85
- Clipsal PVC Cement 90
- Oatey Regular Clear PVC Cement 99
- Uni-Weld 2200 Series Regular Clear PVC Solvent Cement 102

# SAFETY DATA SHEET

## 1. Identification

**Product Identifier** Carlon All Weather QuickSet Cement

**Other means of identification**

SDS number SDS - 00005

Product code VC9981P, VC9982, VC9983, VC9983C, VC9984, VC9985C

**Recommended use** Joining PVC Pipes

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

Company name Thomas & Betts Corporation

Address 8155 T & B Boulevard  
Memphis, TN 38125  
US

Telephone 901-252-5000 ext.8324

E-mail Not available.

**Emergency phone number** CHEMTREC - 24 HOURS: 1-800-424-9300

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 2

**Health hazards** Acute toxicity, oral Category 4

Serious eye damage/eye irritation Category 2A

Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Harmful if swallowed. May cause cancer. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

**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. 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. 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** If exposed or concerned: Get medical advice/attention. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. 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. 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. In case of fire: Use appropriate media to extinguish.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international 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

None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Tetrahydrofuran	109-99-9	30-55
Acetone	67-64-1	10-25
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC;	9002-86-2	12-20
Cyclohexanone	108-94-1	10-20
Silica, amorphous, fumed	112945-52-5	1-5
Other components below reportable levels		6

#### Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 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. 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

Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

#### 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. May cause respiratory irritation.

#### 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

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. Alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). 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

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. 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

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

#### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

#### General fire hazards

Highly flammable liquid and vapor.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. 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. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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

Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. 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. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Containers must be labeled. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Avoid discharge into drains, water courses or onto the ground. 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. 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. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Periodically test for peroxide formation on long-term storage.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m <sup>3</sup> 1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m <sup>3</sup>	

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	PEL	50 ppm	Respirable fraction.
		5 mg/m3	
Tetrahydrofuran (CAS 109-99-9)	PEL	15 mg/m3	Total dust.
		590 mg/m3	
		200 ppm	

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3	
		20 mppcf	

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	TWA	3 mg/m3	Respirable particles.
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	
Acetone (CAS 67-64-1)	TWA	590 mg/m3	
		250 ppm	
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3	
		25 ppm	
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3	
Tetrahydrofuran (CAS 109-99-9)	STEL	735 mg/m3	
		TWA	250 ppm
			590 mg/m3
		200 ppm	

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*

## ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Tetrahydrofuran (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*

\* - For sampling details, please see the source document.

### Exposure guidelines

#### US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1)

Skin designation applies.

#### US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

#### US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Tetrahydrofuran (CAS 109-99-9)

Can be absorbed through the skin.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

#### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. 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 wash fountain and emergency showers are recommended.

#### 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. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

##### Skin protection

##### Other

Wear suitable protective clothing. Use of an impervious apron is recommended.

##### Respiratory protection

Chemical respirator with organic vapor cartridge.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

#### General hygiene considerations

Observe any medical surveillance requirements. 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

Liquid.

#### Color

Clear.

#### Odor

Ether-like.

#### Odor threshold

Not available.

#### pH

Not available.

#### Melting point/freezing point

Not available.

#### Initial boiling point and boiling range

150.8 °F (66 °C)

#### Flash point

14.0 - 23.0 °F (-10.0 - -5.0 °C)

Evaporation rate	5.5 - 8 (BuAc = 1)
Flammability (solid, gas)	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	1.8
Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg (20°C/68°F)
Vapor density	2.5
Relative density	0.91 - 0.95
Relative density temperature	68 °F (20 °C)
<b>Solubility(ies)</b>	
Solubility (water)	Negligible in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
<b>Other information</b>	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC (Weight %)	< 510 g/l

## 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. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Caustics.
Hazardous decomposition products	Carbon oxides. Hydrogen chloride.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Prolonged skin contact may cause redness and irritation. The product contains components which may penetrate skin.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation.

### Information on toxicological effects

Acute toxicity Harmful if swallowed.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20 ml/kg

Components	Species	Test Results
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	800 mg/kg
Tetrahydrofuran (CAS 109-99-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, 24 Hours
<i>Oral</i>		
LD50	Rat	1650 mg/kg
<b>Skin corrosion/irritation</b>	Prolonged and frequent contact may cause redness and irritation. The product contains components which may penetrate skin.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Suspected of causing cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.	
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.	
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.	
<b>NTP Report on Carcinogens</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	Cancer	
<b>Reproductive toxicity</b>	Cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.	
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation. May cause drowsiness and dizziness.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May cause central nervous system effects.	
<b>12. Ecological information</b>		
<b>Ecotoxicity</b>	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
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours
Tetrahydrofuran (CAS 109-99-9)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 2160 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** Not expected to bioaccumulate on the basis of the low octanol-water partition coefficient.

Partition coefficient n-octanol / water (log Kow)	
Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Tetrahydrofuran (CAS 109-99-9)	0.46

**Mobility in soil** Expected to be highly mobile in soil.  
**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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.

### 14. Transport information

#### DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	149, B52, IB2, T4, TP1, TP8
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

#### IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3

Packing group II  
Environmental hazards No  
ERG Code 3L  
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

UN number UN1133  
UN proper shipping name ADHESIVES  
Transport hazard class(es)  
Class 3  
Subsidiary risk -  
Label(s) 3  
Packing group II  
Environmental hazards  
Marine pollutant No  
EmS F-E, S-D

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 Not established.

**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.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; Cancer  
(CAS 9002-86-2)  
Central nervous system  
Liver  
Blood  
Flammability

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Acetone (CAS 67-64-1) LISTED  
Cyclohexanone (CAS 108-94-1) LISTED  
Tetrahydrofuran (CAS 109-99-9) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Hazard categories Immediate Hazard - Yes  
Delayed Hazard - Yes  
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.



**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

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1) 6532

**US state regulations**

**US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)  
Cyclohexanone (CAS 108-94-1)  
Silica, amorphous, fumed (CAS 112945-52-5)  
Tetrahydrofuran (CAS 109-99-9)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)  
Cyclohexanone (CAS 108-94-1)  
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)  
Tetrahydrofuran (CAS 109-99-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)  
Cyclohexanone (CAS 108-94-1)  
Silica, amorphous, fumed (CAS 112945-52-5)  
Tetrahydrofuran (CAS 109-99-9)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)  
Cyclohexanone (CAS 108-94-1)  
Tetrahydrofuran (CAS 109-99-9)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**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)	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 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 08-December-2015  
Revision date -  
Version # 01  
HMIS® ratings Health: 2\*  
Flammability: 3  
Physical hazard: 0

**NFPA ratings**



**Disclaimer**

Thomas & Betts Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Carlon Medium Bodied Gray PVC Solvent Cement

**Other means of identification**

SDS number SDS - 00007

Product code VC9923, VC9922, VC9941P, VC9LV3, VC9LV2, VC9LV4L-24, VC9LV4-24

**Recommended use** Joining PVC Pipes

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

Company name Thomas & Betts Corporation

Address 8155 T & B Boulevard  
Memphis, TN 38125  
US

Telephone 901-252-5000 ext.8324

E-mail Not available.

**Emergency phone number** CHEMTREC - 24 HOURS: 1-800-424-9300

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 2

**Health hazards** Acute toxicity, oral Category 4

Serious eye damage/eye irritation Category 2A

Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Harmful if swallowed. May cause cancer. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

### 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. 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. 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** If exposed or concerned: Get medical advice/attention. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. 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. 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. In case of fire: Use appropriate media to extinguish.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international 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

None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Tetrahydrofuran	109-99-9	30-50
Acetone	67-64-1	10-25
Methyl ethyl ketone	78-93-3	10-25
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC;	9002-86-2	12-20
Cyclohexanone	108-94-1	10-20
Silica, amorphous, fumed	112945-52-5	1-5

#### Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 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. 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

Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

#### 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. May cause respiratory irritation.

#### 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

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. Alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). 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

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. 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

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

#### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

#### General fire hazards

Highly flammable liquid and vapor.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. 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. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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

Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. 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. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Containers must be labeled. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Avoid discharge into drains, water courses or onto the ground. 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. 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. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Periodically test for peroxide formation on long-term storage.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m <sup>3</sup> 1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m <sup>3</sup>	

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	PEL	50 ppm	Respirable fraction.
		5 mg/m3	
Methyl ethyl ketone (CAS 78-93-3)	PEL	15 mg/m3	Total dust.
		590 mg/m3	
Tetrahydrofuran (CAS 109-99-9)	PEL	200 ppm	
		590 mg/m3	
		200 ppm	

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	15 mppcf	Respirable fraction.
		0.8 mg/m3	
		20 mppcf	

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)	TWA	3 mg/m3	Respirable particles.
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
		590 mg/m3
	TWA	200 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3
Tetrahydrofuran (CAS 109-99-9)	STEL	735 mg/m3
	TWA	250 ppm 590 mg/m3 200 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*
Tetrahydrofuran (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cyclohexanone (CAS 108-94-1) Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. 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 wash fountain and emergency showers are recommended.

**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. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

**Skin protection**

**Other** Wear suitable protective clothing. Use of an impervious apron is recommended.

**Respiratory protection**

Chemical respirator with organic vapor cartridge.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements. 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	Liquid.
Color	Gray.
Odor	Ether-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	150.8 °F (66 °C)
Flash point	14.0 - 23.0 °F (-10.0 - -5.0 °C) Cleveland Closed Cup
Evaporation rate	5.5 - 8 (BuAc = 1)
Flammability (solid, gas)	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	1.8
Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg (20°C/68°F)
Vapor density	2.5
Relative density	0.91 - 0.95
Relative density temperature	68 °F (20 °C)
<b>Solubility(ies)</b>	
Solubility (water)	Negligible in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
<b>Other information</b>	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC (Weight %)	< 510 g/l

## 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. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Caustics.
Hazardous decomposition products	Carbon oxides. Hydrogen chloride.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Prolonged skin contact may cause redness and irritation. The product contains components which may penetrate skin.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.



**Symptoms related to the physical, chemical and toxicological characteristics** May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation.

**Information on toxicological effects**

**Acute toxicity** Harmful if swallowed.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	800 mg/kg
Tetrahydrofuran (CAS 109-99-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, 24 Hours
<i>Oral</i>		
LD50	Rat	1650 mg/kg

**Skin corrosion/irritation** Prolonged and frequent contact may cause redness and irritation. The product contains components which may penetrate skin.

**Serious eye damage/eye irritation** Causes serious eye 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** Suspected of causing cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

- Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.
- Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2) 3 Not classifiable as to carcinogenicity to humans.
- Silica, amorphous, fumed (CAS 112945-52-5) 3 Not classifiable as to carcinogenicity to humans.

**NTP Report on Carcinogens**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; Cancer (CAS 9002-86-2)

**Reproductive toxicity** Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

**Specific target organ toxicity - single exposure** May cause respiratory irritation. May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.  
 Aspiration hazard Not an aspiration hazard.  
 Chronic effects Prolonged inhalation may be harmful. May cause central nervous system effects.

**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.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours
Tetrahydrofuran (CAS 109-99-9)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 2160 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 Not expected to bioaccumulate on the basis of the low octanol-water partition coefficient.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Methyl ethyl ketone (CAS 78-93-3)	0.29
Tetrahydrofuran (CAS 109-99-9)	0.46

Mobility in soil Expected to be highly mobile in soil.  
 Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

**13. Disposal considerations**

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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.

**14. Transport information**

DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	149, B52, IB2, T4, TP1, TP8

Packaging exceptions 150  
Packaging non bulk 173  
Packaging bulk 242

#### IATA

UN number UN1133  
UN proper shipping name Adhesives  
Transport hazard class(es)  
Class 3  
Subsidiary risk -  
Label(s) 3  
Packing group II  
Environmental hazards No  
ERG Code 3L  
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

UN number UN1133  
UN proper shipping name ADHESIVES  
Transport hazard class(es)  
Class 3  
Subsidiary risk -  
Label(s) 3  
Packing group II  
Environmental hazards  
Marine pollutant No  
EmS F-E, S-D  
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 Not established.

### 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.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; Cancer  
(CAS 9002-86-2)

Central nervous system  
Liver  
Blood  
Flammability

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1) LISTED  
Cyclohexanone (CAS 108-94-1) LISTED  
Methyl ethyl ketone (CAS 78-93-3) LISTED  
Tetrahydrofuran (CAS 109-99-9) LISTED

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes  
Delayed Hazard - Yes  
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.

**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

Methyl ethyl ketone (CAS 78-93-3) 6714

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Acetone (CAS 67-64-1) 35 %WV

Methyl ethyl ketone (CAS 78-93-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Acetone (CAS 67-64-1) 6532

Methyl ethyl ketone (CAS 78-93-3) 6714

**US state regulations**

**US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Silica, amorphous, fumed (CAS 112945-52-5)

Tetrahydrofuran (CAS 109-99-9)

**US. New Jersey Worker and Community Right-to-Know Act**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Ethene, chloro-, homopolymer, Polyvinyl chloride; PVC; (CAS 9002-86-2)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Silica, amorphous, fumed (CAS 112945-52-5)

Tetrahydrofuran (CAS 109-99-9)

**US. Rhode Island RTK**

Acetone (CAS 67-64-1)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**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)	Yes
Korea	Existing Chemicals List (ECL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
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 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 08-December-2015  
Revision date -  
Version # 01  
HMIS® ratings Health: 2\*  
Flammability: 3  
Physical hazard: 0

NFPA ratings



Disclaimer

Thomas & Betts Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**MATERIAL SAFETY DATA SHEET**

**1. PRODUCT and COMPANY INFORMATION**

PRODUCT	CARLON® MULTI-PURPOSE SPRAY-ON THREAD SEALER	EMERGENCY TELEPHONE NUMBER	CHEMTREC: 800-424-9300
CATALOG NUMBERS	VC9TS5, VC9TS5C, VC9TS5CL	TELEPHONE NUMBER FOR INFORMATION	901-252-5000 ext. 8324
MANUFACTURER / SUPPLIER	THOMAS & BETTS CORPORATION	DATE OF REPARATION or REVISION	JANUARY 5, 2010
ADDRESS	8155 T & B BOULEVARD, MEMPHIS, TENNESSEE 38125		

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

HAZARDOUS COMPONENTS	CAS #	% BY WT	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENE	1330-20-7	1 - 5	100 ppm	N/A	150 ppm	*100 ppm	150 ppm
AROMATIC HYDROCARBON (TOLUENE)	108-88-3	10 - 20	50 ppm	N/A	N/A	*200 ppm	N/A
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3	12 - 25	50 ppm	N/A	1000ppm	*500 ppm	N/A
TITANIUM DIOXIDE	13463-67-7	3 - 5	10 mg/m <sup>3</sup>	N/A	N/A	15 mg/m <sup>3</sup>	N/A
CERAMIC MICROSPHERES	66402-68-4	1 - 4	N/A	N/A	N/A	10 mg/m <sup>3</sup>	N/A
ALUMINUM SILICATE, CLAY	66402-68-4	1 - 4	N/A	N/A	N/A	10 mg/m <sup>3</sup>	N/A
METHYL ACETATE	79-20-9	10 - 20	200 ppm (TWA)	N/A	250 ppm	200 ppm (TWA)	N/A
N-TALLOWALKYL TRIMETHYLENE DIAMINES OLE.	61791-53-5	< 1	N/A	N/A	N/A	N/A	N/A
POLY (BUTADIENE-CO-SYTRENE)	9003-55-8	3 - 5	N/A	N/A	N/A	N/A	N/A
HYDROCARBON PROPELLANT	68476-86-8	20 - 35	1000 ppm	N/A	N/A	1000 ppm	N/A

\* - IF PRESENT, CHEMICAL SUBJECT TO THIS REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 313 ARE IDENTIFIED IN THIS SECTION

**3. HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW	WARNING! FLAMMABLE AEROSOL. VAPORS AND SPRAY MIST HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS DIZZINESS, HEADACHE, OR NAUSEA. MAY CAUSE NOSE, THROAT, EYE AND SKIN IRRITATION. CAN BE ABSORBED THROUGH THE SKIN.
ROUTES OF EXPOSURE	<b>SIGNS and SYMPTOMS</b>
<b>EYES:</b>	VAPORS AND/OR PRODUCT DIRECT CONTACT MAY CAUSE IRRITATION WITH REDNESS, STINGING AND TEARING OF THE EYES. DOES NOT INJURE EYE TISSUE.
<b>INGESTION:</b>	SWALLOWING MAY CAUSE ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION DURING SWALLOWING OR VOMITING CAN CAUSE MILD TO SEVERE PULMONARY INJURY, POSSIBLE MINIMAL TOXICITY.
<b>INHALATION:</b>	HIGH VAPOR/AEROSOL CONCENTRATIONS (GREATER THAN APPROXIMATELY 100 ppm) ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT. THIS PRODUCT MAY CAUSE HEADACHES, DIZZINESS, ANESTHESIA, DROWSINESS, UNCONSCIOUSNESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH.
<b>SKIN:</b>	LOW ORDER OF TOXICITY. FREQUENT OR PROLONGED CONTACT MAY IRRITATE AND CAUSE DERMATITIS. SKIN CONTACT MAY AGGRAVATE AN EXISTING DERMATITIS CONDITION.

**4. FIRST AID MEASURES**

ROUTES OF ENTRY	<b>FIRST AID INSTRUCTIONS</b>
<b>EYE CONTACT:</b>	FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES OR UNTIL CHEMICAL IS REMOVED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION IMMEDIATELY.
<b>INGESTION:</b>	DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. NEVER GIVE ANYTHING BY MOUTH TO A PERSON WHO IS UNCONSCIOUS OR DROWSY. GET IMMEDIATE MEDICAL ATTENTION BY CALLING A POISON CONTROL CENTER, OR HOSPITAL EMERGENCY ROOM. IF MEDICAL ADVICE CANNOT BE OBTAINED, THEN TAKE THE PERSON AND PRODUCT TO THE NEAREST MEDICAL EMERGENCY TREATMENT CENTER OR HOSPITAL.
<b>INHALATION:</b>	IF SYMPTOMS OF EXPOSURE DEVELOP, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, ADMINISTER OXYGEN. ADMINISTER ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. SEEK IMMEDIATE MEDICAL ATTENTION.
<b>SKIN CONTACT:</b>	REMOVE CONTAMINATED CLOTHING IMMEDIATELY. WASH ALL EXPOSED AREAS WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. LAUNDER CONTAMINATED CLOTHING BEFORE USE.

**5. FIRE FIGHTING MEASURES**

<b>EXPLOSION DATA:</b>	
<b>FLAMMABILITY:</b>	LEL: N/A UEL: N/A
<b>EXTINGUISHING MEDIA:</b>	USE DRY CHEMICAL, CO2, HALOGENATED EXTINGUISHING AGENT. STOP GAS FLOW.

**MATERIAL SAFETY DATA SHEET**

<b>FIRE FIGHTING:</b>	WATER SPRAY SHOULD NOT BE USED EXCEPT TO KEEP DOWN VAPORS OR TO COOL CLOSED CONTAINERS TO PREVENT BUILD UP OF PRESSURE. IF WATER IS USED, FOG NOZZLES ARE PREFERRED. 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 VOLITILE 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. AEROSOL CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. FIRE FIGHTERS SHOULD WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS TO AVOID INHALATION OF VAORS.
<b>SPECIAL FIREFIGHTING PROCEDURES:</b>	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, FLASHBACKS, 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.
<b>FLAMMABILITY CONDITIONS:</b>	EXTREMELY FLAMMABLE AEROSOL. EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE OR EXPLOSION.
<b>FLASH POINT / METHOD:</b>	<b>RISK LEVEL 3 AEROSOL:</b> MATERIALS THAT CAN BE IGNITED UNDER ALMOST ALL NORMAL TEMPERATURE CONDITIONS. WATER MAY BE INEFFECTIVE BECAUSE OF THE LOW FLASH POINT.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIABLE ORGANIC MATERIALS.
<b>UNUSUAL FIRE OR EXPLOSION HAZARDS:</b>	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.

**6. ACCIDENTAL RELEASE MEASURES**

<b>CONTAINMENT PROCEDURES:</b>	REMOVE ALL SOURCES OF IGNITION AND VENTILATE AREA. STOP LEAKS IF IT CAN BE DONE WITHOUT RISK. PERSONNEL CLEANING UP THE SPILL SHOULD WEAR APPROPRIATE PERSONAL PROTECTION EQUIPMENT, INCLUDING RESPIRATORS IF VAPOR CONCENTRATIONS ARE HIGH.
<b>CLEAN-UP PROCEDURES:</b>	SOAK UP SPILL WITH AN INERT ABSORBENT SUCH AS SAND, EARTH OR OTHER NON-COMBUSTING MATERIAL. PUT ABSORBENT MATERIAL IN COVERED, LABELED METAL CONTAINERS. PREVENT LIQUID FROM ENTERING WATERCOURSES, SEWERS AND NATURAL WATERWAYS. REPORT RELEASES TO AUTHORITIES AS REQUIRED.
<b>EVACUATION PROCEDURES:</b>	N/A
<b>DISPOSAL:</b>	CONSULT LOCAL AUTHORITIES FOR PROPER WASTE DISPOSAL PROCEDURES. EMPTY DE-PRESSURIZED CONTAINERS CANNOT 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.

**7. HANDLING and STORAGE**

<b>HANDLING PROCEDURES:</b>	AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPORS OR MISTS. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. DO NOT EAT, DRINK OR SMOKE IN THE WORK AREA. KEEP PRODUCT AWAY FROM HEAT SPARKS, FLAMES AND ALL OTHER SOURCES OF IGNITION. NO SMOKING IN STORAGE OR USE AREA. <i>VAPORS MAY CAUSE FLASH FIRE.</i>
<b>STORAGE PROCEDURES:</b>	STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT STORE ABOVE 120° F (49° C). EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. DO NOT CUT OR WELD ON OR NEAR EMPTY OR FULL CONTAINERS.
<b>OTHER PRECAUTIONS:</b>	PLEASE READ AND FOLLOW THE DIRECTIONS ON THE PRODUCT LABEL. THEY ARE YOUR BEST GUIDE TO USING THIS PRODUCT IN THE MOST EFFECTIVE WAY, AND GIVE THE NECESSARY SAFETY PRECAUTIONS TO PROTECT YOUR HEALTH.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

<b>EXPOSURE CONTROLS</b>	EXPOSURE TO MANY HYDROCARBONS POSE POTENTIAL HUMAN HEALTH RISKS, WHICH MAY VARY FROM PERSON TO PERSON. EXPOSURE TO LIQUIDS, VAPORS, MISTS OR FUMES SHOULD BE MINIMIZED. FOR OPERATIONS WHERE THE EXPOSURE LIMITS MAY BE EXCEEDED, A NIOSH APPROVED ORGANIC VAPOR RESPIRATOR OR SUPPLIED AIR RESPIRATOR IS RECOMMENDED. PROVIDE VENTILATION TO MAINTAIN EMISSIONS LEVEL BELOW RECOMMENDED EXPOSURE LIMITS. IF USED IN ENCLOSED AREA, USE EXHAUST FANS. EXHAUST FANS SHOULD BE EXPLOSIONS PROOF OR SET UP IN A WAY THAT FLAMMABLE CONCENTRATIONS OF SOLVENT VAPORS ARE NOT EXPOSED TO ELECTRICAL FIXTURES OR HOT SUFACES.
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**MATERIAL SAFETY DATA SHEET**

**PERSONAL PROTECTION**

- EYE PROTECTION:** APPROVED EYE PROTECTION (SAFETY GLASSES WITH SIDE SHIELDS OR SAFETY GOGGLES) IN COMPLIANCE WITH OSHA REGULATIONS IS ADVISED TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY.
- HAND PROTECTION:** THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. RUBBER GLOVES ARE SUITABLE FOR NORMAL USE OF THE PRODUCT. FOR LONG TERM EXPOSURES CHEMICAL RESISTANT GLOVES MAY BE REQUIRED. POLYFLUORINATED POLYETHYLENE HAS BEEN SUGGESTED.
- RESPIRATORY PROTECTION:** IF WORKPLACE EXPOSURE LIMIT OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION 2), A NIOSH/OSHA APPROVED ORGANIC VAPOR RESPIRATOR IS ADVISED. PROPER ENVIRONMENTAL CONTROL, ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURES.
- SKIN PROTECTION:** IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED. WASH CONTAMINATED CLOTHING AND DRY BEFORE REUSE.
- VENTILATION:** PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW OSHA PEL AND ACGIH TLV LIMITS. IF USED IN ENCLOSED AREA, USE EXHAUST FANS. EXHAUST FANS SHOULD BE EXPLOSION PROOF OR SET UP IN A WAY THAT FLAMMABLE CONCENTRATIONS OF SOLVENT VAPORS ARE NOT EXPOSED TO ELECTRICAL FIXTURES OR HOT SURFACES.

**9. PHYSICAL and CHEMICAL PROPERTIES**

<b>APPEARANCE:</b> AEROSOL SPRAY CAN	<b>AUTO-IGNITION TEMPERATURE:</b> N/A
<b>BOILING POINT:</b> N/A	<b>COLOR:</b> WHITE COATING
<b>DENSITY (lbs/gal):</b> 7.07	<b>FLAMMABILITY:</b> N/A
<b>EVAPORATION RATE (BUTYL ACETATE = 1):</b> N/A	<b>ODOR:</b> N/A
<b>MELTING POINT:</b> N/A	<b>PERCENT, VOLATILE BY WEIGHT (%):</b> N/A
<b>PERCENT, SOLIDS BY WEIGHT (%):</b> N/A	<b>PHYSICAL STATE:</b> LIQUID / LIQUIFIED
<b>PH:</b> N/A	<b>COMPRESSED GAS</b>
<b>SOLUBILITY IN WATER @ 68° F (20° C):</b> NEGLIGIBLE	<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b> 0.85
<b>VAPOR DENSITY OF PRINCIPAL SOLVENT (AIR = 1):</b> HEAVIER THAN AIR	<b>VAPOR PRESSURE OF PRINCIPAL SOLVENT:</b> < 75 psi @ 60°F
<b>VISCOSITY:</b> N/A	<b>VOC CONTENT (lbs / gal):</b> N/A
<b>SOLUBILITY IN ORGANIC SOLVENT:</b> N/A	<b>FLAT PAINT:</b> MIR 1.2

**10. STABILITY and REACTIVITY**

- CHEMICAL STABILITY:** STABLE
- CONDITIONS TO AVOID:** AVOID HEAT, SPARKS, FLAMES AND OTHER SOURCES OF IGNITION. PRODUCT MAY EXPLODE IF HEATED. KEEP COOL AND AVOID EXPOSURE TO TEMPERATURES ABOVE 120°F.
- INCOMPATIBLE MATERIALS:** STRONG OXIDIZING AGENTS, ALKALIS, AMINES, AMMONIA, ACIDS, CHLORINE COMPOUNDS, CHLORINATED INORGANICS (POTASSIUM, CALCIUM AND SODIUM HYPOCHLORITE) AND HYDROGEN PEROXIDES.
- HAZARDOUS DECOMPOSITION PRODUCTS:** THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIABLE ORGANIC MATERIALS.
- HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**11. TOXICOLOGICAL INFORMATION**

**TOXICOLOGICAL INFORMATION**

- CARCINOGENICITY:** NTP: NO  
IARC MONOGRAPHS: NO  
OSHA REGULATED: NO
- HEALTH HAZARDS:**
  - ACUTE:** VAPORS AND SPRAY MIST HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS DIZZINESS, HEADACHES OR NAUSEA. MAY CAUSE NOSE, THROAT, EYE AND SKIN IRRITATION. CAN BE ABSORBED THROUGH THE SKIN.
  - CHRONIC:** NONE KNOWN

**12. ECOLOGICAL INFORMATION**

NO DATA AVAILABLE

**13. DISPOSAL CONSIDERATION**

DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

**14. TRANSPORT INFORMATION**



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DEPARTMENT OF  
TRANSPORTATION (DOT)

LESS THAN 1 LITER (0.3 GAL)  
 UN/NA #: NONE  
 PROPER SHIPPING NAME: CONSUMER COMMODITY  
 HAZARD CLASS: ORM-D  
 PG: NONE  
 ERG: NONE  
 HAZARDOUS LABEL: NONE

IATA

UN/NA #: UN8000  
 PROPER SHIPPING NAME: CONSUMER COMMODITY  
 HAZARD CLASS: 9  
 PG: NONE  
 ERG: NONE  
 HAZARDOUS LABEL: MISCELLANEOUS

**15. REGULATORY INFORMATION**

U.S. FEDERAL REGULATIONS

**TSCA:** ALL COMPONENTS OF THE PRODUCT ARE INCLUDED IN THE EPA TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCES INVENTORY.  
**RCRA HAZARD CLASS:** THE PRODUCT IS CLASSIFIED AS A HAZARDOUS WASTE UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT, OR ITS REGULATIONS, 40 CFR §261 *et seq.*  
**CLEAN AIR ACT:** THE PRODUCT IS NOT PROCESSED WITH OR DOES NOT CONTAIN ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

SARA TITLE III INFORMATION

**SECTION 302:** THERE ARE NO COMPONENTS OF THIS PRODUCT WITH KNOWN CAS NUMBERS WHICH ARE ON THE 40 CFR PART 355 APPENDIX A LIST OF EXTREMELY HAZARDOUS SUBSTANCES.  
**SECTION 311 / 312:** REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQs), AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQs) OF HAZARDOUS MATERIALS LISTED IN SECTION 2.  
**SECTION 313:** THIS PRODUCT CONTAINS CHEMICAL COMPONENTS SUBJECT TO SECTION 313 REPORTING:

CHEMICAL NAME	CAS #
XYLENE	1330-20-7
AROMATIC HYDROCARBON. (TOLUENE)	108-88-3
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3

STATE REGULATIONS / RIGHT-TO-KNOW

**CALIFORNIA  
PROPOSITION 65  
INFORMATION:**

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO BE ON THE CA PROP. 65 LIST:

CHEMICAL NAME	CAS #
AROMATIC HYDROCARBON	108-88-3
**BENZENE	71-43-2

\*\*AT TIMES THERE ARE TRACE ELEMENTS IN ALIPHATIC HYDROCARBON OF BENZENE, WHICH IS ON CA PROP. 65 LIST.

INTERNATIONAL

**WHMIS (CANADA):** THIS PRODUCT CONTAINS THE FOLLOWING THE CHEMICAL(S) LISTED AS CONTROLLED SUBSTANCES:

HAZARDOUS COMPONENTS	CAS #
XYLENE	1330-20-7
AROMATIC HYDROCARBON. (TOLUENE)	108-88-3
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3
TITANIUM DIOXIDE	13463-67-7
METHYL ACETATE	79-20-9
*BENZENE	71-43-2

\*AT TIMES THERE ARE TRACE ELEMENTS IN ALIPHATIC HYDROCARBON OF BENZENE, WHICH IS CLASSIFIED BY WHMIS AS A CONTROLLED SUBSTANCE.

**LABELS:** CANADIAN LABEL CLASSIFICATION REQUIRED ON CONTAINER(S): B2, D2A, D2B

**16. OTHER INFORMATION**

**MATERIAL SAFETY DATA SHEET**REVISION NO: **0**PAGES **5 OF 5**

## HAZARD RATING SYSTEM:

	HEALTH	HMIS	NFPA	KEY
FLAMMABILITY	2	2	2	4 = SEVERE
REACTIVITY	4	4	4	3 = SERIOUS
	0	0	0	2 = MODERATE
				1 = SLIGHT
				0 = MINIMAL

REVISION SUMMARY **0**

SUPERCEDES ISSUE DATE

**17. T&B CATALOG NUMBERS / PRODUCT NUMBERS**

TO BE USED IF SECTION 1 DOES NOT HAVE SPACE TO LIST T&amp;B CATALOG NUMBERS.

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND ACCURATE TO THE BEST OF THOMAS & BETTS CORPORATION KNOWLEDGE. THE INFORMATION RELATES TO THE SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE.

**PRODUCT and COMPANY INFORMATION**

PRODUCT	<b>CARLON® SPRAY-ON NO WASTE CEMENT</b>	EMERGENCY TELEPHONE NUMBER	<b>CHEMTREC: 800-424-9300</b>
CATALOG NUMBERS	<b>VC9AC5C</b>	TELEPHONE NUMBER FOR INFORMATION	<b>901-252-5000 ext. 8324</b>
MANUFACTURER / SUPPLIER	<b>THOMAS &amp; BETTS CORPORATION</b>	DATE OF PREPARATION or REVISION	<b>January 31, 2014</b>
ADDRESS	<b>8155 T &amp; B BOULEVARD, MEMPHIS, TENNESSEE 38125</b>		

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

COMPONENTS	CAS #	Percent
Acetone	67-64-1	20 - 55
Tetrahydrofuran	109-99-9	12 - 35
Methyl ethyl ketone	78-93-3	10 - 30
Hydrocarbon, Propane	68476-86-8	12 - 25
Vinyl chloride-vinyl acetate copolymer	9003-22-9	1 - 10
Isoprene-styrene Polymer	25038-32-8	1 - 5

**3. HAZARDS IDENTIFICATION**

**Physical state** Liquid.

**Appearance** Aerosol (clear liquid).

**Emergency overview** DANGER

Extremely flammable aerosol - contents under pressure. Harmful or fatal if swallowed, can enter lungs and cause damage. Causes skin, eye and respiratory tract irritation. May cause drowsiness or dizziness.

**OSHA regulatory status** This product is hazardous according to OSHA 29 CFR 1910.1200.

**Potential health effects**

**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.

**Eyes** Causes eye irritation.

**Skin** Causes skin irritation. May be absorbed through the skin.

**Inhalation** Causes respiratory tract irritation. May cause drowsiness or dizziness.

**Ingestion** Harmful if swallowed. May irritate and cause malaise. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

**Target organs** Central nervous system. Eyes. Respiratory system. Skin. Kidney. Liver.

**Chronic effects** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Signs and symptoms** In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. Irritation of eyes and mucous membranes. Ingestion may cause irritation and malaise.

**Potential environmental effects** 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.

**4. FIRST AID MEASURES**

**First aid procedures**

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Get medical attention if irritation develops or persists.

**Skin contact** Immediately flush skin with plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if discomfort develops or persists.

**Ingestion** Call a physician or poison control center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration.

**Notes to physician** Treat symptomatically.

**General advice** Thermal burns: Flush with plenty of water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**MATERIAL SAFETY DATA SHEET**

**5. FIRE FIGHTING MEASURES**

**Flammable properties** The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Aerosol containers can explode when heated, due to excessive pressure build-up.

**Extinguishing media**

**Suitable extinguishing media** Water fog. Foam. Carbon dioxide (CO2). Alcohol resistant foam. Powder.

**Unsuitable extinguishing media** None.

**Protection of firefighters**

**Protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** Move containers from fire area if you can do it without risk.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions** Keep unnecessary personnel away. Avoid inhalation of vapors and contact with skin and eyes. Use personal protection as recommended in Section 8 of the MSDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**Methods for cleaning up** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Should not be released into the environment. Stop the flow of material, if this is without risk. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb spillage with non-combustible, absorbent material. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

**Other information** Clean up in accordance with all applicable regulations.

**7. HANDLING and STORAGE**

**Handling** Provide adequate ventilation. Keep away from heat, sparks and open flame. Avoid inhalation of vapors and contact with skin and eyes. The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Use non-sparking hand tools and explosion-proof electrical equipment. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

**Storage** Follow rules for flammable liquids. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials. Periodically test for peroxide formation on long-term storage.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
		200 ppm	
Tetrahydrofuran (CAS 109-99-9)	PEL	590 mg/m3	
		200 ppm	

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	1800 mg/m3	
		750 ppm	
	TWA	1200 mg/m3	
		500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3	
		300 ppm	
	TWA	590 mg/m3	
		200 ppm	

**MATERIAL SAFETY DATA SHEET**

Tetrahydrofuran (CAS 109-99-9)	STEL	295 mg/m <sup>3</sup> 100 ppm
	TWA	147 mg/m <sup>3</sup> 50 ppm

**Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	100 ppm	
	TWA	50 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

**Canada, Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	

**Canada, Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	2380 mg/m <sup>3</sup> 1000 ppm	
	TWA	1190 mg/m <sup>3</sup> 500 ppm	
	STEL	300 mg/m <sup>3</sup> 100 ppm	
Methyl ethyl ketone (CAS 78-93-3)	TWA	150 mg/m <sup>3</sup> 50 ppm	
	TWA	300 mg/m <sup>3</sup> 100 ppm	
Tetrahydrofuran (CAS 109-99-9)	TWA	300 mg/m <sup>3</sup> 100 ppm	

**Mexico, Occupational Exposure Limit Values**

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	3000 mg/m <sup>3</sup> 1260 ppm	
	TWA	2400 mg/m <sup>3</sup> 1000 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m <sup>3</sup> 300 ppm	
	TWA	590 mg/m <sup>3</sup> 200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	735 mg/m <sup>3</sup> 250 ppm	
	TWA	590 mg/m <sup>3</sup> 200 ppm	

**Exposure guidelines**

**Canada - Alberta OELs: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**Canada - British Columbia OELs: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**Canada - Manitoba OELs: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**Canada - Ontario OELs: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**Canada - Saskatchewan OELs: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**US - California OELs: Skin designation**

Methyl ethyl ketone (CAS 78-93-3) Can be absorbed through the skin.

**MATERIAL SAFETY DATA SHEET**

**US ACGIH Threshold Limit Values: Skin designation**

Tetrahydrofuran (CAS 109-99-9) Can be absorbed through the skin.

**Engineering controls** Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

**Personal protective equipment**

**Eye / face protection** Wear goggles/face shield. Eye wash fountain is recommended.

**Skin protection** Wear chemical-resistant, impervious gloves. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing.

**Respiratory protection** Use NIOSH-certified, full-face air-supplied (self-contained breathing apparatus or air-line respirators) respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limits.

**General hygiene considerations**

When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL and CHEMICAL PROPERTIES**

**Appearance** Aerosol (clear liquid).

**Physical state** Liquid.

**Form** Aerosol can.

**Color** Clear.

**Odor** Ether-like.

**Odor threshold** Not available.

**pH** Not available.

**Vapor pressure** > 60 psi (70°F/21°C)

**Vapor density** Not available.

**Boiling point** Not available.

**Melting point/Freezing point** Not available.

**Solubility (water)** > 0.5 % (68 °F/20 °C)

**Specific gravity** 0.88 (H2O=1) (60 °F/15,5 °C)

**Flash point** Not available.

**Flammability limits in air, upper, % by volume** Not available.

**Flammability limits in air, lower, % by volume** Not available.

**Auto-ignition temperature** Not available.

**Evaporation rate** 5.5 - 8 (Butyl acetate = 1)

**Bulk density** 7.34 lb/gal

**10. STABILITY and REACTIVITY**

**Chemical stability** Stable at normal conditions.

**Conditions to avoid** Heat, sparks, flames, elevated temperatures. Protect against direct sunlight.

**Incompatible materials** Strong oxidizing agents. Alkalis. Amines. Ammonia. Acids. Chlorine. Chlorinated inorganics (potassium, calcium and sodium hypochlorite). Hydrogen peroxide (H2O2).

**Hazardous decomposition products** Carbon oxides. Hydrogen chloride.

**Possibility of hazardous reactions** Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Toxicological data**

**Components**

Acetone (CAS 67-64-1)

**Acute**

*Dermal*

LD50

*Inhalation*

LC50

*Oral*

LD50

**Species**

**Test Results**

Rabbit

> 20 ml/kg

Rat

> 50 mg/l, 8 hours

Rat

> 5800 mg/kg

**MATERIAL SAFETY DATA SHEET**

Methyl ethyl ketone (CAS 78-93-3)

<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	8 000 mg/kg
<i>Inhalation</i>		
LC50	Rat	11 700 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	2 300 – 3 500 mg/kg

Tetrahydrofuran (CAS 109-99-9)

<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2 100 mg/kg
<i>Inhalation</i>		
LC50	Rat	8 0975 mg/l, 1 hours 6 200 mg/l, 2 hours 21 000 mg/l, 3 hours 18 000 – 22 000 mg/m1, 4 hours
<i>Oral</i>		
LD50	Rat	1 650 mg/kg

**Sensitization** Not classified.

**Acute effects** Harmful or fatal if swallowed, can enter lungs and cause damage.

**Local effects** Causes skin, eye and respiratory tract irritation.

**Chronic effects** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Carcinogenicity**

**ACGIH Carcinogens**

etone (CAS 67-64-1) A4 Not classifiable as a human carcinogen.

etrahydrofuran (CAS 109-99-9) A3 Confirmed animal carcinogen with unknown relevance to humans.

**Epidemiology** No epidemiological data is available for this product.

**Mutagenicity** Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

**Reproductive effects** Methyl ethyl ketone have been shown to cause embryofetal toxicity and birth defects in laboratory animals.

Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

**Further information** May be absorbed through the skin.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicological data**

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<b>Aquatic</b>		
Fish LC50	Fathead minnow ( <i>Pimephales promelas</i> ) Rainbow trout, Donaldson trout ( <i>Oncorhynchus mykiss</i> )	> 100 mg/l, 96 hours 4 740-6 330 mg/l, 96 hours
Methyl ethyl ketone (CAS 78-93-3)		
<b>Aquatic</b>		
Crustacea EC50	Water flea ( <i>Daphnia magna</i> )	4025 - 6440 mg/l, 48 hours
Fish LC50	Sheepshead minnow ( <i>Cyprinodon variegatus</i> )	> 400 mg/l, 96 hours
Tetrahydrofuran (CAS 109-99-9)		
<b>Aquatic</b>		
Fish LC50	Fathead minnow ( <i>Pimephales promelas</i> )	2 160 mg/l, 96 Hours

**MATERIAL SAFETY DATA SHEET**

**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.

**Environmental effects** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulation / Accumulation** No data available.

**Partition coefficient**

Acetone (CAS 67-64-1) -0.24

Methyl ethyl ketone (CAS 78-93-3) 0.29

Tetrahydrofuran (CAS 109-99-9) 0.46

**Mobility in environmental media** The product is miscible with water. May spread in water systems.

**13. DISPOSAL CONSIDERATION****Waste codes D001**

D035: Waste Methyl ethyl ketone

F003: Waste Spent non-halogenated solvents

F005: Waste spent non-halogenated solvents

**US RCRA Hazardous Waste U List: Reference**

Acetone (CAS 67-64-1) U002

Methyl ethyl ketone (CAS 78-93-3) U159

Tetrahydrofuran (CAS 109-99-9) U213

**Disposal instructions** Dispose of contents/container in accordance with local/regional/national/international regulations. This material and its container must be disposed of as hazardous waste.

**Waste from residues / unused products** Dispose of waste and residues in accordance with local authority requirements.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. TRANSPORT INFORMATION****DOT**

UN number UN1950

**Basic shipping requirements:**

Proper shipping name Aerosols

Hazard class 2.1

Marine pollutant No

Environmental hazards

Packaging exceptions 306

**Additional information:**

Packaging non bulk None

Packaging bulk None

**IATA**

UN number UN1950

UN proper shipping name Aerosols

Transport hazard class(es) 2.1

Environmental hazards No

Labels required 2.1

ERG code 10L

**IMDG**

UN number UN1950

UN proper shipping name AEROSOLS

Transport hazard class(es) 2.1

Subsidiary class(es) 5T

Environmental hazards

Marine pollutant No

Labels required 2.1

**TDG**

UN number UN1950

Proper shipping name AEROSOLS

Hazard class 2.1

Marine pollutant No

Special provisions 80

Labels required 2.1

General DOT Class Consumer Commodity ORM-D up to 1 liter (0.3 gallon)



**15. REGULATORY INFORMATION**

**US federal regulations** This product is hazardous according to OSHA 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)** Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List** Not regulated.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

Acetone: 5000

Tetrahydrofuran: 1000

Methyl ethyl ketone: 5000

**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

**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)** No

**SARA 311/312 Hazardous chemical** Yes

**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)** Not controlled

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**WHMIS status** Controlled

**WHMIS classification** B2 - Flammable Liquids

D1A - Immediate/Serious-VERY TOXIC

D2A - Other Toxic Effects-VERY TOXIC

D2B - Other Toxic Effects-TOXIC

**WHMIS labeling**



**Inventory status**

**Country(s) or region**

Australia

Canada

Canada

China

Europe

Europe

Japan

Korea

New Zealand

Philippines

United States & Puerto Rico

**Inventory name**

Australian Inventory of Chemical Substances (AICS)

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

Inventory of Existing Chemical Substances in China (IECSC)

European Inventory of Existing Commercial Chemical Substances (EINECS)

European List of Notified Chemical Substances (ELINCS)

Inventory of Existing and New Chemical Substances (ENCS)

Existing Chemicals List (ECL)

New Zealand Inventory

Philippine Inventory of Chemicals and Chemical Substances (PICCS)

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

Yes

Yes

No

Yes

No

No

No

Yes

Yes

Yes

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).

**MATERIAL SAFETY DATA SHEET****State regulations****US - California Hazardous Substances (Director's): Listed substance**

Acetone (CAS 67-64-1) Listed.

Methyl ethyl ketone (CAS 78-93-3) Listed.

Tetrahydrofuran (CAS 109-99-9) Listed.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not listed.****US - New Jersey RTK - Substances: Listed substance**

Acetone (CAS 67-64-1) Listed.

Methyl ethyl ketone (CAS 78-93-3) Listed.

Tetrahydrofuran (CAS 109-99-9) Listed.

**US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1) Listed.

Methyl ethyl ketone (CAS 78-93-3) Listed.

Tetrahydrofuran (CAS 109-99-9) Listed.

**US. New Jersey Worker and Community Right-to-Know Act Not regulated.****US. Pennsylvania RTK - Hazardous Substances**

Acetone (CAS 67-64-1) Listed.

Methyl ethyl ketone (CAS 78-93-3) Listed.

Tetrahydrofuran (CAS 109-99-9) Listed.

**16. OTHER INFORMATION**

	HMIS	NFPA	KEY
HEALTH	2	2	4 = SEVERE
FLAMMABILITY	3	3	3 = SERIOUS
INSTABILITY		0	2 = MODERATE
PHYSICAL HAZARD	0		1 = SLIGHT
			0 = MINIMAL

REVISION SUMMARY: 01

JPERCEDES ISSUE DATE: January 5, 2010

**Disclaimer** The information presented herein has been compiled from resources considered to be dependable and accurate to the best of Thomas & Betts Corporation knowledge. The information relates to the special material. It may not be valid for this material if used in combination with any other materials or in any other process. It is user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use.

**1. PRODUCT and COMPANY INFORMATION**

PRODUCT	CARLON® WEATHER-GUARD™ SPRAY ON RUBBER FILM	EMERGENCY TELEPHONE NUMBER	CHEMTREC: 800-424-9300
CATALOG NUMBERS	VC9WG5, VC9W16, VC9WG5C, VC9WG16C, VC9WG5CL	TELEPHONE NUMBER FOR INFORMATION	901-252-5000 ext. 8324
MANUFACTURER / SUPPLIER	THOMAS & BETTS CORPORATION	DATE OF REPARATION or REVISION	JANUARY 5, 2010
ADDRESS	8155 T & B BOULEVARD, MEMPHIS, TENNESSEE 38125		

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

HAZARDOUS COMPONENTS	CAS #	% BY WT	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENE	1330-20-7	20 – 30	100 ppm	N/A	150 ppm	*100 ppm	150 ppm
POLY (BUTADIENE-CO-STYRENE)	9003-55-8	13 – 20	N/A	N/A	N/A	N/A	N/A
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3	35 – 50	50 ppm (180 mg/m <sup>3</sup> )	N/A	N/A	*500 ppm (1800 mg/m <sup>3</sup> )	N/A
ACETONE	67-64-1	1 – 4	500 ppm	N/A	750 ppm	1000 ppm	N/A
HYDROCARBON, PROPANE	68476-86-8	12 – 20	1000 ppm	N/A	N/A	1000 ppm	N/A

\* - IF PRESENT, CHEMICAL SUBJECT TO THIS REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 313 ARE IDENTIFIED IN THIS SECTION

**3. HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW	WARNING! FLAMMABLE AEROSOL. VAPORS AND SPRAY MIST HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS DIZZINESS, HEADACHE, OR NAUSEA. MAY CAUSE NOSE, THROAT, EYE AND SKIN IRRITATION. CAN BE ABSORBED THROUGH THE SKIN.
ROUTES OF EXPOSURE	SIGNS and SYMPTOMS
EYES:	VAPORS AND/OR PRODUCT DIRECT CONTACT MAY CAUSE IRRITATION WITH REDNESS, STINGING AND TEARING OF THE EYES. DOES NOT INJURE EYE TISSUE.
INGESTION:	SWALLOWING MAY CAUSE ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION DURING SWALLOWING OR VOMITING CAN CAUSE MILD TO SEVERE PULMONARY INJURY, POSSIBLE MINIMAL TOXICITY.
INHALATION:	HIGH VAPOR/AEROSOL CONCENTRATIONS (GREATER THAN APPROXIMATELY 100 ppm) ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT. THIS PRODUCT MAY CAUSE HEADACHES, DIZZINESS, ANESTHESIA, DROWSINESS, UNCONSCIOUSNESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH.
SKIN:	LOW ORDER OF TOXICITY. FREQUENT OR PROLONGED CONTACT MAY IRRITATE AND CAUSE DERMATITIS. SKIN CONTACT MAY AGGRAVATE AN EXISTING DERMATITIS CONDITION.

**4. FIRST AID MEASURES**

ROUTES OF ENTRY	FIRST AID INSTRUCTIONS
EYE CONTACT:	FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES OR UNTIL CHEMICAL IS REMOVED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION IMMEDIATELY.
INGESTION:	DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. NEVER GIVE ANYTHING BY MOUTH TO A PERSON WHO IS UNCONSCIOUS OR DROWSY. GET IMMEDIATE MEDICAL ATTENTION BY CALLING A POISON CONTROL CENTER, OR HOSPITAL EMERGENCY ROOM. IF MEDICAL ADVICE CANNOT BE OBTAINED, THEN TAKE THE PERSON AND PRODUCT TO THE NEAREST MEDICAL EMERGENCY TREATMENT CENTER OR HOSPITAL.
INHALATION:	IF SYMPTOMS OF EXPOSURE DEVELOP, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, ADMINISTER OXYGEN. ADMINISTER ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. SEEK IMMEDIATE MEDICAL ATTENTION.
SKIN CONTACT:	REMOVE CONTAMINATED CLOTHING IMMEDIATELY. WASH ALL EXPOSED AREAS WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. LAUNDER CONTAMINATED CLOTHING BEFORE USE.

**5. FIRE FIGHTING MEASURES**

EXPLOSION DATA:	
FLAMMABILITY:	LEL: 1.0 % BY VOLUME UEL: 6.0 % BY VOLUME
EXTINGUISHING MEDIA:	USE DRY CHEMICAL, CO2, HALOGENATED EXTINGUISHING AGENT. STOP GAS FLOW.
FIRE FIGHTING:	WATER SPRAY SHOULD NOT BE USED EXCEPT TO KEEP DOWN VAPORS OR TO COOL CLOSED CONTAINERS TO PREVENT BUILD UP OF PRESSURE. IF WATER IS USED, FOG NOZZLES ARE PREFERRED. 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 VOLITILE 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. AEROSOL CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. FIRE FIGHTERS SHOULD WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS TO AVOID INHALATION OF VAORS.

**MATERIAL SAFETY DATA SHEET**

<b>SPECIAL FIREFIGHTING PROCEDURES:</b>	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, FLASHBACKS, 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.
<b>FLAMMABILITY CONDITIONS:</b>	EXTREMELY FLAMMABLE AEROSOL. EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE OR EXPLOSION.
<b>FLASH POINT / METHOD:</b>	<b>RISK LEVEL 3 AEROSOL:</b> MATERIALS THAT CAN BE IGNITED UNDER ALMOST ALL NORMAL TEMPERATURE CONDITIONS. WATER MAY BE INEFFECTIVE BECAUSE OF THE LOW FLASH POINT.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIABLE ORGANIC MATERIALS.
<b>UNUSUAL FIRE OR EXPLOSION HAZARDS:</b>	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.

**6. ACCIDENTAL RELEASE MEASURES**

<b>CONTAINMENT PROCEDURES:</b>	REMOVE ALL SOURCES OF IGNITION AND VENTILATE AREA. STOP LEAKS IF IT CAN BE DONE WITHOUT RISK. PERSONNEL CLEANING UP THE SPILL SHOULD WEAR APPROPRIATE PERSONAL PROTECTION EQUIPMENT, INCLUDING RESPIRATORS IF VAPOR CONCENTRATIONS ARE HIGH.
<b>CLEAN-UP PROCEDURES:</b>	SOAK UP SPILL WITH AN INERT ABSORBENT SUCH AS SAND, EARTH OR OTHER NON-COMBUSTING MATERIAL. PUT ABSORBENT MATERIAL IN COVERED, LABELED METAL CONTAINERS. PREVENT LIQUID FROM ENTERING WATERCOURSES, SEWERS AND NATURAL WATERWAYS. REPORT RELEASES TO AUTHORITIES AS REQUIRED.
<b>EVACUATION PROCEDURES:</b>	N/A
<b>DISPOSAL:</b>	CONSULT LOCAL AUTHORITIES FOR PROPER WASTE DISPOSAL PROCEDURES. EMPTY DE-PRESSURIZED CONTAINERS CANNOT 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.

**7. HANDLING and STORAGE**

<b>HANDLING PROCEDURES:</b>	AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPORS OR MISTS. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. DO NOT EAT, DRINK OR SMOKE IN THE WORK AREA. KEEP PRODUCT AWAY FROM HEAT SPARKS, FLAMES AND ALL OTHER SOURCES OF IGNITION. NO SMOKING IN STORAGE OR USE AREA. <i>VAPORS MAY CAUSE FLASH FIRE.</i>
<b>STORAGE PROCEDURES:</b>	STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT STORE ABOVE 120° F (49° C). EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. DO NOT CUT OR WELD ON OR NEAR EMPTY OR FULL CONTAINERS.
<b>OTHER PRECAUTIONS:</b>	PLEASE READ AND FOLLOW THE DIRECTIONS ON THE PRODUCT LABEL. THEY ARE YOUR BEST GUIDE TO USING THIS PRODUCT IN THE MOST EFFECTIVE WAY, AND GIVE THE NECESSARY SAFETY PRECAUTIONS TO PROTECT YOUR HEALTH.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

<b>EXPOSURE CONTROLS</b>	EXPOSURE TO MANY HYDROCARBONS POSE POTENTIAL HUMAN HEALTH RISK, WHICH MAY VARY FROM PERSON TO PERSON. EXPOSURE TO LIQUIDS, VAPORS, MISTS OR FUMES SHOULD BE MINIMIZED. FOR OPERATIONS WHERE THE EXPOSURE LIMITS MAY BE EXCEEDED, A NIOSH APPROVED ORGANIC VAPOR RESPIRATOR OR SUPPLIED AIR RESPIRATOR IS RECOMMENDED. PROVIDE VENTILATION TO MAINTAIN EMISSIONS LEVEL BELOW RECOMMENDED EXPOSURE LIMITS. IF USED IN ENCLOSED AREA, USE EXHAUST FANS. EXHAUST FANS SHOULD BE EXPLOSIONS PROOF OR SET UP IN A WAY THAT FLAMMABLE CONCENTRATIONS OF SOLVENT VAPORS ARE NOT EXPOSED TO ELECTRICAL FIXTURES OR HOT SURFACES.
<b>PERSONAL PROTECTION</b>	
<b>EYE PROTECTION:</b>	APPROVED EYE PROTECTION (SAFETY GLASSES WITH SIDE SHIELDS OR SAFETY GOGGLES) IN COMPLIANCE WITH OSHA REGULATIONS IS ADVISED TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY.
<b>HAND PROTECTION:</b>	THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION. RUBBER GLOVES ARE SUITABLE FOR NORMAL USE OF THE PRODUCT. FOR LONG TERM EXPOSURES CHEMICAL RESISTANT GLOVES MAY BE REQUIRED. POLYFLUORINATED POLYETHYLENE HAS BEEN SUGGESTED.

**MATERIAL SAFETY DATA SHEET**

**RESPIRATORY PROTECTION:** IF WORKPLACE EXPOSURE LIMIT OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION 2), A NIOSH/OSHA APPROVED ORGANIC VAPOR RESPIRATOR IS ADVISED. PROPER ENVIRONMENTAL CONTROL, ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURES.

**SKIN PROTECTION:** IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED. WASH CONTAMINATED CLOTHING AND DRY BEFORE REUSE.

**VENTILATION:** PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW OSHA PEL AND ACGIH TLV LIMITS. IF USED IN ENCLOSED AREA, USE EXHAUST FANS. EXHAUST FANS SHOULD BE EXPLOSION PROOF OR SET UP IN A WAY THAT FLAMMABLE CONCENTRATIONS OF SOLVENT VAPORS ARE NOT EXPOSED TO ELECTRICAL FIXTURES OR HOT SURFACES.

**9. PHYSICAL and CHEMICAL PROPERTIES**

<b>APPEARANCE:</b> AEROSOL SPRAY CAN	<b>AUTO-IGNITION TEMPERATURE:</b> N/A
<b>BOILING POINT:</b> N/A	<b>COLOR:</b> CLEAR
<b>DENSITY (lbs/gal):</b> 6.42	<b>FLAMMABILITY:</b> N/A
<b>EVAPORATION RATE (BUTYL ACETATE = 1):</b> N/A	<b>ODOR:</b> N/A
<b>MELTING POINT:</b> N/A	<b>PERCENT VOLATILE BY WEIGHT (%):</b> N/A
<b>PERCENT SOLIDS BY WEIGHT (%):</b> N/A	<b>PHYSICAL STATE:</b> LIQUID / LIQUIFIED COMPRESSED GAS
<b>PH:</b> N/A	
<b>SOLUBILITY IN WATER @ 88° F (20° C):</b> NEGLIGIBLE	<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b> 0.770
<b>VAPOR DENSITY OF PRINCIPAL SOLVENT (AIR = 1):</b> HEAVIER THAN AIR	<b>VAPOR PRESSURE OF PRINCIPAL SOLVENT:</b> < 75 psi @ 60°F
<b>VISCOSITY:</b> N/A	<b>VOC CONTENT (lbs / gal):</b> N/A
<b>SOLUBILITY IN ORGANIC SOLVENT:</b> N/A	<b>ELECTRICAL FILM:</b> CALIFORNIA EXEMPT

**10. STABILITY and REACTIVITY**

**CHEMICAL STABILITY:** STABLE

**CONDITIONS TO AVOID:** AVOID HEAT, SPARKS, FLAMES AND OTHER SOURCES OF IGNITION. PRODUCT MAY EXPLODE IF HEATED. KEEP COOL AND AVOID EXPOSURE TO TEMPERATURES ABOVE 120°F.

**INCOMPATIBLE MATERIALS:** STRONG OXIDIZING AGENTS, ALKALIS, AMINES, AMMONIA, ACIDS, CHLORINE COMPOUNDS, CHLORINATED INORGANICS (POTASSIUM, CALCIUM AND SODIUM HYPOCHLORITE) AND HYDROGEN PEROXIDES.

**HAZARDOUS DECOMPOSITION PRODUCTS:** THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIABLE ORGANIC MATERIALS.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**11. TOXICOLOGICAL INFORMATION**

TOXICOLOGICAL INFORMATION

**CARCINOGENICITY** NTP: NO  
IARC MONOGRAPHS: NO  
OSHA REGULATED: NO

HEALTH HAZARDS

**ACUTE:** VAPORS AND SPRAY MIST HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS DIZZINESS, HEADACHES OR NAUSEA. MAY CAUSE NOSE, THROAT, EYE AND SKIN IRRITATION. CAN BE ABSORBED THROUGH THE SKIN.

**CHRONIC:** NONE KNOWN

**12. ECOLOGICAL INFORMATION**

NO DATA AVAILABLE

**13. DISPOSAL CONSIDERATION**

DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

**14. TRANSPORT INFORMATION**

DEPARTMENT OF TRANSPORTATION (DOT)

LESS THAN 1 LITER (0.3 GAL)  
UN/NA #: NONE  
PROPER SHIPPING NAME: CONSUMER COMMODITY  
HAZARD CLASS: ORM-D  
PG: NONE

**MATERIAL SAFETY DATA SHEET**

ERG: NONE  
HAZARDOUS LABEL: NONE

IATA

UN/NA #: UN8000  
PROPER SHIPPING NAME: CONSUMER COMMODITY  
HAZARD CLASS: 9  
PG: NONE  
ERG: NONE  
HAZARDOUS LABEL: MISCELLANEOUS

**15. REGULATORY INFORMATION**

U.S. FEDERAL REGULATIONS

**TSCA:** ALL COMPONENTS OF THE PRODUCT ARE INCLUDED IN THE EPA TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCES INVENTORY.  
**CERCLA:** THE PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS SUBSTANCE UNDER REGULATIONS OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA), 40 CFR §302.  
**RCRA HAZARD CLASS:** THE PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT, OR ITS REGULATIONS, 40 CFR §261 et seq.  
**CLEAN AIR ACT:** THE PRODUCT IS NOT PROCESSED WITH OR DOES NOT CONTAIN ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

SARA TITLE III INFORMATION

**SECTION 302:** THERE ARE NO COMPONENTS OF THIS PRODUCT WITH KNOWN CAS NUMBERS WHICH ARE ON THE 40 CFR PART 355 APPENDIX A LIST OF EXTREMELY HAZARDOUS SUBSTANCES.  
**SECTION 311 / 312:** REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQs), AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQs) OF HAZARDOUS MATERIALS LISTED IN SECTION 2.  
**SECTION 313:** THIS PRODUCT CONTAINS CHEMICAL COMPONENTS SUBJECT TO SECTION 313 REPORTING:

<u>CHEMICAL NAME</u>	<u>C.A.S. NUMBER</u>
XYLENE	1330-20-7
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3

STATE REGULATIONS / RIGHT-TO-KNOW

**CALIFORNIA PROPOSITION 65 INFORMATION:** THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCE(S) KNOWN TO BE ON THE CA PROP. 65 LIST:

<u>CHEMICAL NAME</u>	<u>C.A.S. NUMBER</u>
**BENZENE	71-43-2

\*\*AT TIMES THERE ARE TRACE ELEMENTS IN ALIPHATIC HYDROCARBON OF BENZENE, WHICH IS ON CA PROP. 65 LIST.

INTERNATIONAL

**WHMIS (CANADA):** THIS PRODUCT CONTAINS THE FOLLOWING THE CHEMICAL(S) LISTED AS CONTROLLED SUBSTANCES:

<u>HAZARDOUS COMPONENTS</u>	<u>CAS #</u>
XYLENE	1330-20-7
ALIPHATIC HYDROCARBON (N. HEXANE)	110-54-3
ACETONE	67-64-1
*BENZENE	71-43-2

\*AT TIMES THERE ARE TRACE ELEMENTS IN ALIPHATIC HYDROCARBON OF BENZENE, WHICH IS CLASSIFIED BY WHMIS AS A CONTROLLED SUBSTANCE.

**LABELS:** CANADIAN LABEL CLASSIFICATION REQUIRED ON CONTAINER(S): B2, D3A, D2A, D2B

**16. OTHER INFORMATION**

**HAZARD RATING SYSTEM:**

	<b>HMIS</b>	<b>NFPA</b>	<b>KEY</b>
HEALTH	3	3	4 = SEVERE
FLAMMABILITY	4	4	3 = SERIOUS
REACTIVITY	0	0	2 = MODERATE
			1 = SLIGHT
			0 = MINIMAL

REVISION SUMMARY 0  
SUPERCEDES ISSUE DATE

**MATERIAL SAFETY DATA SHEET****17. T&B CATALOG NUMBERS / PRODUCT NUMBERS**

TO BE USED IF SECTION 1 DOES NOT HAVE SPACE TO LIST T&B CATALOG NUMBERS.

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND ACCURATE TO THE BEST OF THOMAS & BETTS CORPORATION KNOWLEDGE. THE INFORMATION RELATES TO THE SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE.

# Material Safety Data Sheet



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## Hazardous Substance, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Clipsal PVC Cement N Blue**

**Synonyms:**

Clipsal PVC Cement N Blue, 125 mL  
Clipsal PVC Cement N Blue, 250 mL  
Clipsal PVC Cement N Blue, 500 mL  
Clipsal PVC Cement N Blue, 1 Litre

**Mancode**

345393  
345482  
345563  
345687

**Recommended use:** Solvent welding cement for uPVC plastics

**Supplier:** Bostik Australia Pty Ltd  
**ABN:** 79 003 893 838  
**Street Address:** 51-71 High Street  
Thomastown VIC 3074  
Australia  
**Telephone:** +613 9279-9333  
**Facsimile:** +613 9279-9342  
**Website:** [www.bostik.com.au](http://www.bostik.com.au)

Bostik New Zealand Limited  
19 Eastern Hutt Road  
Wingate Lower Hutt  
New Zealand  
+644 567-5119  
+644 567-5412  
[www.bostik.co.nz](http://www.bostik.co.nz)

**Emergency telephone number:** Australia – 1800 033 111      New Zealand – 0800 243 622

### 2. HAZARDS IDENTIFICATION

#### AUSTRALIA CLASSIFICATION

This material is hazardous according to health criteria of Safe Work Australia.

**Hazard Category:**

Xn Harmful  
Xi Irritant

**Risk Phrase(s):**

R20: Harmful by inhalation.  
R36: Irritating to eyes.  
R66: Repeated exposure may cause skin dryness or cracking.  
R67: Vapours may cause drowsiness and dizziness.

**Safety Phrase(s):**

S23: Do not breathe vapour.  
S24/25: Avoid contact with skin and eyes.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S38: In case of insufficient ventilation, wear suitable respiratory equipment.

**Poisons Schedule (Aust):** S5

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.



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## NEW ZEALAND CLASSIFICATION

This material is hazardous according to health criteria of ERMA New Zealand

**ERMA Group Standard:** Construction Products (Subsidiary Hazard) Group Standard 2006; HSR002544

### HSNO Hazard Classification

- 3.1B Flammable liquid
- 6.1D Substances that are acutely toxic.
- 6.4A Substances that are irritating to the eye

### Hazard Statement:

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H332 Harmful If Inhaled.

### Prevention Statement:

- P102 Keep out of reach of children.
- P103 Read label before use.
- P210 Keep away from all sources of ignition. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing vapours.
- P264 Wash hands, face and all exposed skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

## DANGEROUS GOODS CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Class:** 3 Flammable Liquid

### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Methyl ethyl ketone	78-93-3	30-60%
Cyclohexanone	108-94-1	10-30%
Acetone	67-64-1	10-30%
Ingredients determined to be non-hazardous	-	Balance
		100%

### 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

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**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

**Skin contact:** For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

**Eye contact:** If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

**Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Specific hazards:** Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

**Fire fighting further advice:** If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** •3YE

**Suitable extinguishing media:** If material is involved in a fire use foam, dry agent (carbon dioxide, dry chemical powder).

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

# Material Safety Data Sheet



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Dangerous Goods – Initial Emergency Response Guide No: 14

## 7. HANDLING AND STORAGE

**Handling:** Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 3 Flammable Liquid as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### National occupational exposure limits:

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m3	ppm	mg/m3		
Cyclohexanone	25	100	-	-	-	Sk
Methyl ethyl ketone	150	445	300	890	-	-
Acetone	500	1,185	1,000	2,375	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

WES-TWA (Workplace Exposure Standard – Time-weighted Average). The time-weighted average exposure standard designed to protect the worker for the effects of long-term exposure.

WES-STEL (Workplace Exposure Standard - Short-Term Exposure Limit). The 15-minute average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue changes, or necrosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

'Sk' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

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These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Medium bodied blue liquid with ketonic odour

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	Approx 0.94
<b>Relative Vapour Density (air=1):</b>	>1
<b>Vapour Pressure (20 °C):</b>	9,500 Pa*
<b>Flash Point (°C):</b>	-4*
<b>Flammability Limits (%):</b>	LEL – 1.8; UEL – 11.5*
<b>Autoignition Temperature (°C):</b>	515*
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N Av
<b>pH:</b>	N App
<b>Total VOC (g/Litre):</b>	508

\* values for methyl ethyl ketone  
(Typical values only - consult specification sheet)  
N Av = Not available      N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

# Material Safety Data Sheet



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**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Harmful by inhalation. Material may be irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

**Skin contact:** Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

**Eye contact:** An eye irritant.

**Ingestion:** Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

### Acute toxicity / Chronic toxicity

No LD50 data available for the product. However, for the constituent:

#### Cyclohexanone

Oral LD50(rat): 1,400-2100 mg/kg  
Inhalation LC50(rat): 8,000 ppm/4 hr

SKIN (rabbit): Mild irritant  
EYES (rabbit): Severe irritant

Rabbits exposed to 190 ppm of cyclohexanone for 50 days, 6 hour/days showed barely demonstrable degenerative changes in the liver and kidneys.

Positive in IN VITRO mutagenicity assays.

In sensory threshold tests involving human subjects exposure at 25 ppm was not uncomfortable for most subjects; 50 ppm was irritating, especially to the throat; exposure at 75 ppm for 3-5 minutes resulted in more pronounced irritation of the eyes, nose and throat.

#### Methyl ethyl ketone

Oral LD50 (rat): 2,737 mg/kg  
Inhalation LC50 (rat): 23,500 mg/m<sup>3</sup>/8 hr  
Dermal LD50 Range (rabbit): 5,000-13,000 mg/kg  
EYES (rabbit): Moderate irritant. Eye irritation reported in humans exposed to vapour at 350 ppm

# Material Safety Data Sheet



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**MUTAGENICITY:** Methyl ethyl ketone has been shown to be without genotoxic activity in a variety of in vitro and in vivo tests. Among the tests, which produced negative results, are assays for point mutation (eg. Ames test and mouse lymphoma), chromosomal aberration (rat liver cells in vitro and mouse bone marrow in vivo), DNA damage (unscheduled DNA synthesis in rat hepatocytes), and morphologic transformation (BALB 3T3 morphologic transformation).

**REPRODUCTIVE/DEVELOPMENTAL EFFECTS:** No human studies have been reported. An initial inhalation study with rats indicated fetotoxicity (eg. delayed foetal development) and possible teratogenicity at 3000 ppm. However, a comprehensive follow-up study in rats showed only slight fetotoxicity accompanied by maternal toxicity at 3000 ppm, but no teratogenic effects. No significant differences were seen between rats exposed to 1000 ppm or 400 ppm methyl ethyl ketone and the control. Likewise, an inhalation study with mice showed only fetotoxicity at 3000 ppm and no effects at 1000 ppm or 400 ppm methyl ethyl ketone.

Methyl ethyl ketone is not neurotoxic. It has been shown to potentiate the neurotoxic effects of hexane, 2,5-hexanedione and methyl-n-butyl ketone and has also potentiated the liver toxicity of halogenated solvents (eg. chloroform and carbon tetrachloride) in animal studies.

Not a skin sensitiser based on human patch test.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**UN No:** 1133  
**Dangerous Goods Class:** 3  
**Packing Group:** II  
**Hazchem Code:** •3YE  
**Emergency Response Guide No:** 14

**Proper Shipping Name:** ADHESIVE containing flammable liquids

# Material Safety Data Sheet



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**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

## MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**UN No:** 1133  
**Dangerous Goods Class:** 3  
**Packing Group:** II

**Proper Shipping Name:** ADHESIVE containing flammable liquids

## AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**UN No:** 1133  
**Dangerous Goods Class:** 3  
**Packing Group:** II

**Proper Shipping Name:** ADHESIVE containing flammable liquids

## 15. REGULATORY INFORMATION

**Poisons Schedule (Aust):** S5

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

### Literary reference

This Material Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd ([chemdata.com.au](http://chemdata.com.au)) on behalf of its client.

Reason(s) For Issue: Revised

Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Bostik Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

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This is not a controlled document. To obtain the most recent MSDS please go to [www.bostik.com.au](http://www.bostik.com.au)

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.



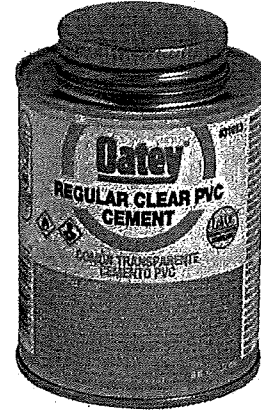


## Technical Specification

## Regular Clear PVC Cement

### Description

- Regular-Bodied Clear cement for use on all schedules and classes of PVC pipe and fittings up to 4" for Sch. 40 and up to 2" for Sch. 80.
- Lo-V.O.C. Solvent Cement meets California South Coast Air Quality Management District (SCAQMD) 1168/316A or BAAQMD Method 40 and various environmental requirements.
- Recommended for potable water, pressure pipe, conduit and DWV.
- Recommended application temperature 40°F to 110°F / 4°C to 43°C.
- Meets ASTM D-2564.



### Listings



NSF Standard 61 for PW,  
DWV and Sewer Waste



IAPMO Listed

**Maximum VOC per SCAQMD 1168/316A or BAAQMD Method 40: 510 g/L**

### INGREDIENTS (CAS Number)

Acetone (67-64-1), Amorphous Silica (112945-52-5), Cyclohexanone (108-94-4), Methyl Ethyl Ketone (78-93-3), PVC Resin (9002-86-2), Tetrahydrofuran (109-99-9)

**MSDS Number:** 1100E

Product Number	Size	Qty	Wgt	Product Number	Size	Qty	Wgt
31012	4 oz.	24	9 lbs.	310123	4 oz.	48	8 lbs.
31013	8 oz.	24	15 lbs.	310133	8 oz.	36	15 lbs.
31014	16 oz.	24	28 lbs.	310143	16 oz.	10	28 lbs.
31015	32 oz.	12	27 lbs.	310153	32 oz.	6	27 lbs.
31016	Gallon	6	50 lbs.				

Oatey Co.  
4700 West 160 th St.  
Cleveland, OH 44135

Phone: 1-800-321-9532  
Phone: 1-800-321-9535  
Visit [www.oatey.com](http://www.oatey.com) for Update





## Technical Specification

## Regular Clear PVC Cement

<u>CHEMICAL PROPERTIES</u>		<u>PHYSICAL PROPERTIES</u>	
Appearance	Clear Liquid	Lap Shear Strength	(min. ASTM Standards)
Viscosity	Min. 90 cps @73° F ± 2° F	2 hours	250 psi
Density	7.47 ± 0.2 lbs/gallon	16 hours	500 psi
Shelf Life	3 years from manufacture date	72 hours	900 psi
		Set Up Time	
		30° F to 50° F	6 – 7 minutes
		50° F to 70° F	4 – 5 minutes
		70° F to 90° F	1 – 3 minutes

### Precautions

Read all information carefully before using this product.

**DANGER!: CAUSES SERIOUS EYE IRRITATION. HARMFUL IF INHALED. MAY CAUSE DROWSINESS OR DIZZINESS. MAY CAUSE RESPIRATORY IRRITATION. REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.** Long term overexposure to solvents may cause damage to the brain, nervous system, reproductive system, respiratory system, mucous membranes, liver and kidneys. Contains a chemical classified by the US EPA as a suspected possible carcinogen. **KEEP OUT OF REACH OF CHILDREN.**

**PRECAUTIONS:** Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear a NIOSH-approved respirator for organic solvents. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Vapors may accumulate in low places and may ignite explosively. Keep container tightly closed and cool. Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat or drink while using this product.

### **EMERGENCY/FIRST AID: CALL 1-877-740-5015 FOR INSTRUCTIONS.**

**IF SWALLOWED:** Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth. This product may be aspirated into the lungs and cause chemical pneumonitis, a potentially fatal condition. **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 ON SKIN:** Rinse skin with water/shower. Take off immediately all contaminated clothing. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER/doctor if you feel unwell. If medical advice is needed, have product container or label at hand. **FIRE:** Use dry chemical, foam, or carbon dioxide extinguisher. Water spray may be applied to reduce potential vapors or for cooling. Burning liquid extinguished with water will float and may re-ignite on surface of water. **SPILLS:** Remove all sources of ignition and ventilate area. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with absorbent material. Put absorbent material in covered, labeled metal containers. Dispose of contents/ container in accordance with local regulations. Store in a well-ventilated space. Store locked up.

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Phone: 1-800-321-9535  
Visit [www.oatey.com](http://www.oatey.com) for Update





**Directions for Use**

Store and use at temperatures between 40°F and 110°F. At temperatures outside of this range, special care must be taken to prepare good joints and prevent exposure to solvents. Stir or shake before using; if jelly-like, don't use. Do not thin.

1. Cut pipe ends square, chamfer and clean pipe ends.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Clean pipe and fitting with a listed primer.
5. Apply liberal coat of cement to pipe to the depth of the socket, leave no uncoated surface.
6. Apply a thin coat of cement to inside of fitting, avoid puddling of cement. Puddling can cause weakening and premature failure of pipe or fitting. Apply a second coat of cement to the pipe.
7. Assemble parts QUICKLY. Cement must be fluid. If cement surface has dried, recoat both parts.
8. Push pipe FULLY into fitting using a ¼ turning motion until pipe bottoms.
9. Hold pipe and fitting together for 30 seconds to prevent pipe push-out - longer at low temperatures. Wipe off excess.
10. Allow 15 minutes for good handling strength and 2 hours cure time at temperatures above 60°F before pressure testing up to 180 psi. Longer cure times may be required at temperatures below 60°F or with pipe above 3".

DO NOT TEST WITH AIR.

Revision Date: 3/15/2013

# UNI-WELD®

United Elchem Industries  
PH: 1-800-321-9532  
FAX: 1-800-321-9535  
TECHNICAL SUBMITTAL

## UNI-WELD® 2200 SERIES REGULAR CLEAR PVC SOLVENT CEMENT

Page 1 of 2

**TECHNICAL SPECIFICATION:** Uni-Weld 2200 Series Regular Clear PVC Solvent Cement is recommended for solvent welding use on all grades and types of PVC pipe and fittings up to 4" for Sch. 40 and up to 2" for Sch. 80 with interference fit. Regular Clear PVC Solvent Cement can be used for potable water, sewer and drain, waste and vent systems. This product is compliant with California South Coast Air Quality Management District (SCAQMD) Rule 1168 and Ozone Transport Commission (OTC) regulations for Volatile Organic Compound emission levels. Note: This product is not for use in a system using or being tested by compressed air or gases.



### INGREDIENTS (CAS Number)

Acetone (67-64-1)  
Cyclohexanone (108-94-4)  
Methyl Ethyl Ketone (78-93-3)  
PVC Resin (9002-86-2)  
Tetrahydrofuran (109-99-9)

### LISTINGS



NSF Standard 61  
for PW, DWV, SEWER



IAPMO Listed

Meets ASTM Standard D 2564

### PHYSICAL/CHEMICAL PROPERTIES

Appearance	Clear Liquid
Viscosity	minimum 90 cps @ 73° F ± 2° F
Density	7.47 ± 0.2 lbs/gallon
Lap Shear Strength (minimum per ASTM Standards)	
2 hours	250 psi
16 hours	500 psi
72 hours	900 psi
Set Up Time	
30° F to 50° F	5 – 6 minutes
50° F to 70° F	3 – 4 minutes
70° F to 90° F	1 – 2 minutes
Shelf Life	3 years from manufacture date

Maximum VOC per SCAQMD 1168/316A or BAAQMD  
Method 40: 510 g/L

PRODUCT NUMBER	SIZE	PACK	CARTON WEIGHT
2266S	4 fl. oz.	24	9 lbs.
2256S	8 fl. oz.	24	16 lbs.
2246S	16 fl. oz.	24	27 lbs.
2236S	32 fl. oz.	12	26 lbs.
2224	Gallon	6	52 lbs.

# UNI-WELD®

United Elchem Industries  
PH: 1-800-321-9532  
FAX: 1-800-321-9535  
TECHNICAL SUBMITTAL

## UNI-WELD® 2200 SERIES REGULAR CLEAR SOLVENT CEMENT

Page 2 of 2

### DIRECTIONS FOR USE

Read all directions carefully before using this product.

- Do not breathe vapors. Use only in well ventilated area. If forced air ventilation is used, be sure it does not cause a fire hazard from solvent vapors. If adequate ventilation cannot be provided, wear a NIOSH-approved respirator for organic solvents.
- Do not use or store near heat, sparks, or flames. Do not smoke, eat or drink when using. Do not take internally. Vapors may accumulate in low places and may ignite explosively.
- Store and use at temperatures between 40°F and 110°F. At temperatures outside of this range, special care must be taken to prepare good joints and prevent exposures to solvents.
- Stir or shake before using; if jelly-like, don't use. Keep container closed when not in use.
- Avoid eye and skin contact - wear safety glasses with side shields and wear rubber gloves.
- Do not thin.

1. Square pipe ends and remove all burrs and dirt.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If the pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Clean pipe and fitting with a listed primer.
5. Apply liberal coat of cement to pipe to the depth of the socket; leave no uncoated surface.
6. Apply a thin coat of cement to inside of fitting; avoid puddling of cement. Puddling can cause weakening and premature failure of pipe or fitting. Apply a second coat of cement to the pipe.
7. Assemble parts QUICKLY. Cement must be fluid. If cement surface has dried, recoat both parts.
8. Push pipe FULLY into fitting using a 1/4 turning motion until pipe bottoms.
9. Hold pipe and fitting together for 30 seconds to prevent pipe push-out - longer at low temperatures. Wipe off excess.
10. Allow 15 minutes for good handling strength and 2 hours cure time at temperatures above 60°F before hydrostatic pressure testing up to 180 psi. Longer cure times may be required at temperatures below 60°F or with pipe diameters over 3". DO NOT TEST WITH AIR.

This product is not for use with caustic or acidic chemical solutions. Consult Technical Department for more information.

### PRECAUTIONS

Read all information carefully before using this product.

**DANGER: EXTREMELY FLAMMABLE. VAPORS MAY CAUSE FLASH FIRES. MAY IRRITATE EYES AND SKIN. VAPOR HARMFUL. MAY IRRITATE RESPIRATORY TRACT AND CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. HARMFUL OR FATAL IF SWALLOWED.**

May cause irritation to eyes, skin, and nose, throat, and respiratory tract. May cause coughing, sore throat, difficulty breathing, headache, dizziness, nausea. Long term repeated overexposures to solvents may cause damage to the brain, nervous system, reproductive system, respiratory system, mucous membranes, liver, and kidneys. **KEEP OUT OF REACH OF CHILDREN.**

**FIRST AID:** If swallowed, **DO NOT INDUCE VOMITING.** Drink water and call a doctor or poison control center immediately. This product may be aspirated into the lungs and cause chemical pneumonitis, a potentially fatal condition. If contact with eyes, flush with water for 15 minutes and seek medical attention if irritation persists. If contact with skin, flush with water and then use baby oil or hand cleaner to remove residue. If inhaled and ill feelings develop, get fresh air and obtain medical attention if ill feelings persist. **FOR EMERGENCY FIRST AID INSTRUCTIONS CALL 1-877-740-5015.**

**FIRE:** Use dry chemical, foam, or carbon dioxide extinguisher. Water spray may be applied to reduce potential vapors or for cooling. Burning liquid extinguished with water will float and may re-ignite on surface of water.

**SPILLS:** Remove all sources of ignition and ventilate area. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with absorbent material. Put absorbent material in covered, labeled metal containers. Dispose of in accordance with local regulations.

A fire or explosion may result if dry granular calcium hypochlorite is used to disinfect plastic piping systems and is exposed to organic vapors found in solvent cements, cleaners or primers. Do not disinfect piping system with dry granules. Do not store dry granular calcium hypochlorite near solvent cements, cleaners or primers. **DO NOT REUSE EMPTY CONTAINER. KEEP OUT OF REACH OF CHILDREN.**

Refer to material safety data sheet for more information.

**Before purchase and use of a product, review the product application and be certain the product, installation and use will be in compliance with any applicable codes and regulations.**



SDS Manual

Cleaner



# SDS Manual

# Cleaner

- Bramec Contact Cleaner LB 12 pack 106
- Hercules for Hands 117
- Ideal Multi-Purpose Wipes 124
- LAVA Bar Soap 134
- Noalay Anti-Oxidant 138

# SAFETY DATA SHEET

## 1. Identification

**Product number** 1000035631  
**Product identifier** 11 OZ BRAMEC CONTACT CLEANER LB 12PK  
**Company information** Bramec Corporation  
403 Hwy 105  
North Sioux City, SD 57049 United States  
**Company phone** General Assistance 1-605-232-4311  
**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** Skin corrosion/irritation Category 2  
Reproductive toxicity Category 2  
Specific target organ toxicity, single exposure Category 3 narcotic effects  
Specific target organ toxicity, repeated exposure Category 2  
Aspiration hazard Category 1  
**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

### 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. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. 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: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

#### Disposal

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

### Environmental hazards

Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 2



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	%
Naphtha, (Petroleum), Hydrotreated Light		64742-49-0	40 - 60
1,1-Difluoroethane		75-37-6	20 - 40
n-Hexane		110-54-3	20 - 40
Isopropyl Alcohol		67-63-0	2.5 - 10
Cyclohexane		110-82-7	0.1 - 1
Other components below reportable levels			0.01 - 0.1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	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.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	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.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	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. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	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.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Extremely flammable aerosol.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. 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. Prevent entry into waterways, sewer, basements or confined areas. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: 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. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**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. 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. Do not breathe gas. Avoid contact with eyes, skin, and clothing. 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. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Level 3 Aerosol.

Store locked up. 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
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m3
		300 ppm
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3
		500 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Cyclohexane (CAS 110-82-7)	TWA	100 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Cyclohexane (CAS 110-82-7)	TWA	1050 mg/m3
		300 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	500 ppm
		980 mg/m3
		400 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3

**US. NIOSH: Pocket Guide to Chemical Hazards**  
**Components** **Type**

**Value**

50 ppm

**US. Workplace Environmental Exposure Level (WEEL) Guides**  
**Components** **Type**

**Value**

1,1-Difluoroethane (CAS 75-37-6)

TWA

2700 mg/m3

1000 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**  
**Components** **Value**

**Determinant**

**Specimen**

**Sampling Time**

Isopropyl Alcohol (CAS 67-63-0)

40 mg/l

Acetone

Urine

\*

n-Hexane (CAS 110-54-3)

0.4 mg/l

2,5-Hexanedione, without hydrolysis

Urine

\*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

**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. Eye wash facilities and emergency shower must be available when handling this product.

**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 appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**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**

Observe any medical surveillance requirements. 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**

Not available.

**Flash point**

-58.0 °F (-50.0 °C) Propellant estimated

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Not available.

**Upper/lower flammability or explosive limits**

<b>Flammability limit - lower (%)</b>	3.9 % estimated
<b>Flammability limit - upper (%)</b>	13.2 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	40 - 50 psig @70F estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	611.6 °F (322 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.673 - 0.693 estimated

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Isocyanates. Chlorine.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	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**      Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity**      May be fatal if swallowed and enters airways. Narcotic effects.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
11 OZ BRAMEC CONTACT CLEANER LB 12PK		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	7082 mg/kg
<b>Inhalation</b>		
LC50	Rat	806 mg/l/4h

Components	Species	Test Results
Cyclohexane (CAS 110-82-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 32880 mg/m3, 4 Hours > 5540 ppm, 4 Hours
<b>Oral</b>		
LD50	Rabbit	> 5000 mg/kg
	Rat	> 5000 mg/kg
Isopropyl Alcohol (CAS 67-63-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	16.4 ml/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 10000 ppm, 6 Hours
<b>Oral</b>		
LD50	Rat	5.84 g/kg
Naphtha, (Petroleum), Hydrotreated Light (CAS 64742-49-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Guinea pig; Rabbit	> 9.4 ml/kg, 24 Hours
	Rabbit	> 1900 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 5000 mg/m3, 4 Hours > 4980 mg/m3 > 4980 mg/m3, 4 Hours > 4.96 mg/l, 4 Hours 13700 ppm, 4 Hours
<b>Oral</b>		
LD50	Rat	4820 mg/kg
n-Hexane (CAS 110-54-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 4 Hours > 5 ml/kg, 4 Hours
<b>Inhalation</b>		
LC50	Rat	> 5000 ppm, 24 Hours > 31.86 mg/l 73860 ppm, 4 Hours
<b>Oral</b>		
LD50	Rat	24 ml/kg 24 g/kg
	Wistar rat	49 g/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**

Causes skin 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** Suspected of damaging fertility or the unborn child.**Specific target organ toxicity - single exposure** May cause drowsiness and dizziness.**Specific target organ toxicity - repeated exposure** Respiratory system. Skin. Central nervous system. Eyes. Peripheral nervous system. May cause damage to organs through prolonged or repeated exposure.**Aspiration hazard** May be fatal if swallowed and enters airways.**Chronic effects** May cause damage to organs through prolonged or repeated exposure.**12. Ecological information****Ecotoxicity** Toxic to aquatic life with long lasting effects.

Product		Species	Test Results
<b>11 OZ BRAMEC CONTACT CLEANER LB 12PK</b>			
<b>Aquatic</b>			
Algae	IC50	Algae	11111 mg/L, 72 Hours
Fish	LC50	Fish	10.2822 mg/L, 96 Hours
<b>Components</b>			
<b>Cyclohexane (CAS 110-82-7)</b>			
<b>Aquatic</b>			
Fish	LC50	Fathead minnow (Pimephales promelas)	23.03 - 42.07 mg/l, 96 hours
<b>Isopropyl Alcohol (CAS 67-63-0)</b>			
<b>Aquatic</b>			
Algae	IC50	Algae	1000.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	13299 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
<b>n-Hexane (CAS 110-54-3)</b>			
<b>Aquatic</b>			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 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)**

1,1-Difluoroethane	0.75
Cyclohexane	3.44
Isopropyl Alcohol	0.05
n-Hexane	3.9

**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

<b>Disposal instructions</b>	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 of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	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

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable, (each not exceeding 1 L capacity)
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking.

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.
<b>Packaging Exceptions</b>	LTD QTY

#### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.

**Environmental hazards**

**Marine pollutant** Yes

**EmS** F-D, S-U

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. 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.

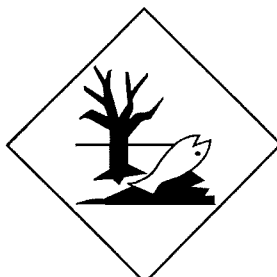
**DOT**



**IATA; IMDG**



**Marine pollutant**



**General information**

IMDG Regulated Marine Pollutant.

**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)**

Cyclohexane (CAS 110-82-7)

Listed.

n-Hexane (CAS 110-54-3)

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 - Yes  
 Delayed Hazard - Yes  
 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)**

<b>Chemical name</b>	<b>CAS number</b>	<b>% by wt.</b>
n-Hexane	110-54-3	20 - 40
Cyclohexane	110-82-7	0.1 - 1

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

n-Hexane (CAS 110-54-3)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

1,1-Difluoroethane (CAS 75-37-6)

**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))**

Isopropyl Alcohol (CAS 67-63-0)  
 Naphtha, (Petroleum), Hydrotreated Light (CAS 64742-49-0)  
 n-Hexane (CAS 110-54-3)

**US. Massachusetts RTK - Substance List**

1,1-Difluoroethane (CAS 75-37-6)  
 Cyclohexane (CAS 110-82-7)  
 Isopropyl Alcohol (CAS 67-63-0)  
 n-Hexane (CAS 110-54-3)

**US. New Jersey Worker and Community Right-to-Know Act**

1,1-Difluoroethane (CAS 75-37-6)  
 Cyclohexane (CAS 110-82-7)  
 Isopropyl Alcohol (CAS 67-63-0)  
 n-Hexane (CAS 110-54-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Cyclohexane (CAS 110-82-7)  
 Isopropyl Alcohol (CAS 67-63-0)  
 n-Hexane (CAS 110-54-3)

**US. Rhode Island RTK**

1,1-Difluoroethane (CAS 75-37-6)  
 Cyclohexane (CAS 110-82-7)  
 Isopropyl Alcohol (CAS 67-63-0)  
 n-Hexane (CAS 110-54-3)

**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

**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/Male reproductive toxin**

Benzene (CAS 71-43-2) Listed: December 26, 1997

## 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)	No
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

<b>Issue date</b>	05-01-2017
<b>Version #</b>	01
<b>Disclaimer</b>	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. We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
<b>Revision information</b>	Product and Company Identification: Alternate Trade Names



Material Name: Hercules for Hands

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

**MSDS #304**

**Part Numbers:** 45333, 45334, 45333T, 453339T, 45337 Hand Wipe

**Intended Use:**

**Manufacturer Information**

HCC Holdings  
An Oatey Affiliate  
4700 West 160th Street  
Cleveland, OH 44135

Phone: 216-267-7100

For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1- 703-527-3887.

**\*\*\* Section 2 - Hazards Identification \*\*\***

**GHS Classification:**

Specific Target Organ Toxicity Single Exposure - Category 3

**GHS LABEL ELEMENTS**

**Symbol(s)**



**Signal Word**

Warning

**Hazard Statements**

May cause respiratory irritation.

**Precautionary Statements**

**Prevention**

Avoid breathing fume/gas/mist/vapors.

**Response**

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.

**Disposal**

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

Material Name: Hercules for Hands

**\*\*\* Section 3 - Composition / Information on Ingredients \*\*\***

CAS #	Component	Percent
7732-18-5	Water	50 - 80
1119-40-0	Dimethyl glutarate	7-13
627-93-0	Dimethyl adipate	
106-65-0	Dimethyl succinate	
57-55-6	1,2-Propylene glycol	1-5
5989-27-5	D-Limonene	1-5

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

**First Aid: Eyes**

Flush victim's eyes with large quantities of water, holding the eyelids apart. Get medical attention if irritation persists.

**First Aid: Skin**

No first aid is required. If irritation develops after use, discontinue use and consult a physician.

**First Aid: Ingestion**

Do not induce vomiting. Get immediate medical attention.

**First Aid: Inhalation**

No adverse effects are expected, however, if irritation or other symptoms develop, remove to fresh air. Seek medical attention if symptoms persist.

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

**General Fire Hazards**

See Section 9 for Flammability Properties.

Not classified as flammable or combustible but will burn under fire conditions.

**Hazardous Combustion Products**

Burning may produce carbon monoxide, carbon dioxide and unidentified hydrocarbons.

**Extinguishing Media**

Use water fog or spray, carbon dioxide, dry chemical or foam.

**Unsuitable Extinguishing Media**

None.

**Fire Fighting Equipment/Instructions**

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

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

**Recovery and Neutralization**

Stop leak if it can be done without risk.

**Materials and Methods for Clean-Up**

Pick up for re-use or disposal. Flush spill area with water.

**Emergency Measures**

Isolate area. Keep unnecessary personnel away.

**Personal Precautions and Protective Equipment**

None required.

**Material Name: Hercules for Hands**

**Environmental Precautions**

None

**Prevention of Secondary Hazards**

None

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

**Handling Procedures**

Avoid contact with eyes. Keep containers closed when not in use.

**Storage Procedures**

Store in a cool, dry area. Keep from freezing.

**Incompatibilities**

Strong oxidizing agents, acids and bases.

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

**Component Exposure Limits**

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

**Engineering Measures**

None required for normal product use conditions.

**Personal Protective Equipment: Respiratory**

None required for normal product use conditions.

**Personal Protective Equipment: Hands**

None required for normal product use conditions. This product is intended for use on the skin.

**Personal Protective Equipment: Eyes**

None required for normal product use conditions. Safety glasses recommended where splashing if possible.

**Personal Protective Equipment: Skin and Body**

No additional protective equipment needed.

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

<b>Appearance:</b>	Towelettes saturated with clear, colorless liquid.	<b>Odor:</b>	Pleasant
<b>Physical State:</b>	Solid saturated with liquid	<b>pH:</b>	ND
<b>Vapor Pressure:</b>	1 mmHg @ 20° C	<b>Vapor Density:</b>	ND
<b>Boiling Point:</b>	100-230°C	<b>Melting Point:</b>	ND
<b>Solubility (H2O):</b>	100%	<b>Specific Gravity:</b>	1.01
<b>Evaporation Rate:</b>	0.01 (Buac=1)	<b>VOC:</b>	ND
<b>Octanol/H2O Coeff.:</b>	ND	<b>Flash Point:</b>	235°F (113°C)
<b>Flash Point Method:</b>	ND	<b>Upper Flammability Limit (UFL):</b>	8.0
<b>Lower Flammability Limit (LFL):</b>	0.7	<b>Burning Rate:</b>	ND
<b>Auto Ignition:</b>	ND		

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

**Chemical Stability**

This is a stable material.

**Hazardous Reaction Potential**

Will not occur.

**Material Name: Hercules for Hands**

**Conditions to Avoid**

None.

**Incompatible Products**

Strong oxidizing agents, acids and bases.

**Hazardous Decomposition Products**

Burning may produce carbon monoxide, carbon dioxide and unidentified hydrocarbons.

**\*\*\* Section 11 - Toxicological Information \*\*\***

**Acute Toxicity**

**Component Analysis - LD50/LC50**

**Dimethyl glutarate (1119-40-0)**

Inhalation LC50 Rat >5.6 mg/L 4 h; Oral LD50 Rat 8191 mg/kg

**Dimethyl adipate (627-93-0)**

Oral LD50 Rat 1920 mg/kg

**Dimethyl succinate (106-65-0)**

Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >5000 mg/kg

**1,2-Propylene glycol (57-55-6)**

Oral LD50 Rat 20000 mg/kg; Dermal LD50 Rabbit 20800 mg/kg

**D-Limonene (5989-27-5)**

Oral LD50 Rat 4400 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

**Potential Health Effects: Skin Corrosion Property/Stimulativeness**

No significant irritation is expected. Not a skin irritant in animal tests.

**Potential Health Effects: Eye Critical Damage/ Stimulativeness**

May cause mild irritation or discomfort. Not an eye irritant in animal tests.

**Potential Health Effects: Ingestion**

Swallowing may cause nausea, vomiting and diarrhea.

**Potential Health Effects: Inhalation**

Inhalation of vapors may cause irritation of the nose, throat and upper respiratory tract. High concentrations may cause blurry vision.

**Respiratory Organs Sensitization/Skin Sensitization**

This product is not reported to have any skin sensitization effects.

**Generative Cell Mutagenicity**

This product is not reported to have any mutagenic effects

**Carcinogenicity**

**A: General Product Information**

This product is not reported to have any carcinogenic effects

**B: Component Carcinogenicity**

**D-Limonene (5989-27-5)**

IARC: Monograph 73 [1999] (overall evaluation downgraded from 2B to 3 with supporting evidence from other relevant data) (Group 3 (not classifiable))

**Material Name: Hercules for Hands**

**Reproductive Toxicity**

This product is not reported to have any reproductive toxicity effects

**Specified Target Organ General Toxicity: Single Exposure**

May cause respiratory irritation.

**Specified Target Organ General Toxicity: Repeated Exposure**

This product is not reported to have any specific target organ toxicity repeat exposure effects.

**Aspiration Respiratory Organs Hazard**

Not an aspiration hazard.

**\*\*\* Section 12 - Ecological Information \*\*\***

**Ecotoxicity**

**A: General Product Information**

This product is not expected to be toxic to aquatic organisms.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

**Dimethyl glutarate (1119-40-0)**

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	19.6-26.2 mg/L [static]	
48 Hr EC50 Daphnia magna	122.1 - 163.5 mg/L	

**Dimethyl succinate (106-65-0)**

Test & Species		Conditions
96 Hr LC50 Brachydanio rerio	50-100 mg/L [static]	

**1,2-Propylene glycol (57-55-6)**

Test & Species		Conditions
96 Hr LC50 Oncorhynchus mykiss	51600 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	41 - 47 mL/L [static]	
96 Hr LC50 Pimephales promelas	51400 mg/L [static]	
96 Hr LC50 Pimephales promelas	710 mg/L	
96 Hr EC50 Pseudokirchneriella subcapitata	19000 mg/L	
24 Hr EC50 Daphnia magna	>10000 mg/L	
48 Hr EC50 Daphnia magna	>1000 mg/L [Static]	

**D-Limonene (5989-27-5)**

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	0.619-0.796 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	35 mg/L	

**Persistence/Degradability**

No information available for the product.

**Bioaccumulation**

No information available for the product.

**Mobility in Soil**

No information available for the product.

Material Name: Hercules for Hands

**\*\*\* Section 13 - Disposal Considerations \*\*\***

**Waste Disposal Instructions**

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

**Disposal of Contaminated Containers or Packaging**

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

**\*\*\* Section 14 - Transportation Information \*\*\***

**DOT/IMDG Information**

Shipping Name: Not Regulated

**\*\*\* Section 15 - Regulatory Information \*\*\***

**Regulatory Information**

**US Federal Regulations**

**Component Analysis**

None of this products 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**

**Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
1,2-Propylene glycol	57-55-6	No	No	Yes	Yes	Yes	No

**Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
1,2-Propylene glycol	57-55-6	1 %
D-Limonene	5989-27-5	1 %

**Additional Regulatory Information**



**Material Name: Hercules for Hands**

**Component Analysis - Inventory**

Component	CAS #	TSCA	CAN	EEC
Dimethyl glutarate	1119-40-0	Yes	DSL	EINECS
Dimethyl adipate	627-93-0	Yes	DSL	EINECS
Dimethyl succinate	106-65-0	Yes	DSL	EINECS
1,2-Propylene glycol	57-55-6	Yes	DSL	EINECS
D-Limonene	5989-27-5	Yes	DSL	EINECS

**\*\*\* Section 16 - Other Information \*\*\***

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

**Literature References**

None

**Other Information**

NFPA Rating: Health = 0 Fire = 1 Reactivity = 0

HMIS Rating: Health = 0 Fire = 1 Reactivity = 0

**Disclaimer:**

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

End of Sheet

**Safety Data Sheet**  
**OSHA Hazard Communication Standard**  
**29 CFR 1910.1200. Prepared to GHS Rev 3.**



Revision date: Initial version  
Date of issue: 05.20.2015

Page: 1/10

<b>Trade name:</b>	<b>IDEAL Wipes Multi-purpose wipes</b>
--------------------	--

**SECTION 1: Identification**

<b>Product identifier:</b>	<b>IDEAL Wipes Multi-purpose wipes.</b>
<b>Synonyms:</b>	None available.
<b>Product Code Number:</b>	38-500.
<b>SDS number:</b>	ID017
<b>Recommended use:</b>	Cleaner.
<b>Recommended restrictions:</b>	None known.

**Manufacturer/Importer/Supplier/Distributor information:**

<b>Company Name:</b>	IDEAL INDUSTRIES, INC.
<b>Company Address:</b>	Becker Place, Sycamore, IL 60178
<b>Company Telephone:</b>	Office hours (Mon – Fri) 7AM - 5 PM (CDT) (815)895-5181
<b>Company Contact Name:</b>	Darryl Docter.
<b>Company Contact Email:</b>	IDEAL@IDEALINDUSTRIES.COM
<b>Emergency phone number:</b>	24 HOUR EMERGENCY NUMBER: (815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

*Physical hazards*

Not classified as a physical hazard under GHS criteria.

*Health hazards*

Eye irritation, Category 2A.

*Environmental hazards*

Not classified as an environmental hazard under GHS criteria.

**GHS Signal word:** **WARNING.**

**GHS Hazard statement(s):** H319 Causes serious eye irritation.

GHS Hazard symbol(s):



GHS Precautionary statement(s):

**Prevention:**

P264 - Wash hands thoroughly after handling.  
P280 - Wear eye protection/face protection.

**Response:**

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.

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise  
Classified (HNOC):**

None known.

**Percentage of ingredient(s) of unknown acute toxicity:**  
Not applicable

**SECTION 3: Composition/information on ingredients**

Mixture: Cleaner.

Chemical name	CAS#	Concentration (weight %)
Blend of Alcohol paneths	68131-39-5 68439-46-3	< 5%

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Move to fresh air. Get medical attention if symptoms develop.

**Skin contact:** Immediately remove excess chemical and contaminated clothing; thoroughly wash contaminated skin with mild soap and water. If irritation persists after washing seek medical attention. Clean contaminated clothing before reuse.

**Eye contact:** Thoroughly flush eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting upper and lower eye lids. If irritation persists, seek medical attention.

**Ingestion:** If victim is conscious and able to swallow, have the victim drink water to dilute. Never give anything by mouth if victim is unconscious or having convulsions. Induce vomiting only if advised by a physician or Poison Control Center. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY.

**Most important symptoms/effects, acute and delayed:** Eye contact may be slightly irritating. May be harmful if ingested. Inhaling mist may cause irritation to respiratory tract. Prolonged contact may cause skin to become dry or minor irritation.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet.

#### SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** After water evaporates residue can burn. Use water spray, carbon dioxide, alcohol type or universal type foam applied in accordance with the manufacturer's instructions.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None known. Use water to keep fire-exposed containers cool.

Combustion products - May include and are not limited to oxides of carbon.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

#### SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** 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.

**Methods and material for containment and cleaning up:**

Ventilate area. Collect for disposal. Clean up remaining materials from spill with suitable absorbent. Clean area as appropriate since some material, even in small quantities; may present a slip hazard. Observe all personal protection equipment recommendations.

**SECTION 7: Handling and Storage**

**Precautions for safe handling:** Avoid contact with eyes, skin and clothing. Handle and open container with care. Empty containers may contain product residue. Do not reuse empty containers without commercial cleaning and reconditioning. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment as required (see section 8).

**Conditions for safe storage, including any incompatibles:**

Keep Out of Reach of Children. Keep away from heat, sparks, flame, static electricity, or other sources of ignition. Where flammable mixtures may be present, equipment safe for such locations should be used. Store in a cool, dry place away from incompatible materials.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

<b>US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits</b>		
<b>Substance</b>	<b>PEL-TWA (8 hour)</b>	<b>PEL-STEL (15 min)</b>
Blend of Alcohol paneths	No data available	No data available

<b>US ACGIH Threshold Limit Values</b>		
<b>Substance</b>	<b>TLV-TWA (8 hour)</b>	<b>TLV-STEL (15 min)</b>
Blend of Alcohol paneths	No data available	No data available

<b>USA. NIOSH Exposure Levels</b>		
<b>Substance</b>	<b>TWA</b>	<b>STEL</b>
Blend of Alcohol paneths	No data available	No data available

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** None required but the use of safety glasses is recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

**Skin and Hand protection:** None required but use of chemical resistant (rubber, nitrile) gloves is recommended. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** None required. Use supplied-air respiratory protection in enclosed spaces, if needed.

**Other:** Eye fountain in work area is recommended but not necessary.

**Thermal hazards:** No data available.

**SECTION 9: Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	Liquid
<b>Form:</b>	Clear liquid.
<b>Color:</b>	Clear.
<b>Odor:</b>	Citrus.
<b>Odor threshold:</b>	No data available
<b>pH:</b>	5.0 – 8.0.
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212 °F (100 °C)
<b>Flash point:</b>	>300°F
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	The product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	1.00
<b>Solubility(ies):</b>	Dispersible in water
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

**Other information:**  
**Percent volatile by volume (%):** No data available  
**Percent solid by weight:** <15%

**SECTION 10: Stability and Reactivity**

**Reactivity:** Not chemically reactive.  
**Chemical stability:** Stable under normal ambient and anticipated conditions of use.  
**Possibility of hazardous reactions:** Hazardous reactions not anticipated.  
**Conditions to avoid:** Extreme temperatures.  
**Incompatible materials:** Avoid strong oxidizing agents.  
**Hazardous decomposition Products:** May include and are not limited to oxides of carbon.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure:**

**Inhalation:** Not an expected route of entry.  
**Ingestion:** Not an expected route of entry.  
**Skin:** Skin contact is a primary route of entry.  
**Eyes:** Not an expected route of entry.

**Symptoms related to the physical, chemical, and toxicological characteristics:**

May cause eye irritation. Inhaling mist may cause irritation to respiratory tract. May cause stomach distress or nausea.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
Prolonged contact may cause skin to become dry or minor irritation.

**Numerical measures of toxicity:**

**Ingredient Information:**

Substance	Test Type (species)	Value
Blend of Alcohol paneths	LD <sub>50</sub> Oral (Rat)	> 2000 mg/kg
	LD <sub>50</sub> Dermal (Rabbit)	> 2000 mg/kg
	LC <sub>50</sub> Inhalation (Rat)	No data available

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** Prolonged contact may cause skin to become dry or minor irritation.

<b>Serious eye damage/eye irritation:</b>	May cause irritation to the eyes.
<b>Respiratory sensitization:</b>	No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).
<b>Skin sensitization:</b>	No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).
<b>Germ cell mutagenicity:</b>	No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).
<b>Carcinogenicity:</b>	No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.
<b>Reproductive toxicity:</b>	No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).
<b>Specific target organ toxicity- Single exposure:</b>	No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).
<b>Specific target organ toxicity- Repeat exposure:</b>	No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).
<b>Aspiration hazard:</b>	No information available on the mixture, however none of the components have been classified for Aspiration hazard (or are below the concentration threshold for classification).
<b>Further information:</b>	No data available.



**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Blend of Alcohol paneths	LC <sub>50</sub>	Fish	5 - 10 mg/l, 96 hours
	LC <sub>50</sub>	Aquatic Invertebrates (Daphnia)	5 - 10 mg/l, 48 hours
	EC <sub>50</sub>	Algae	10 - 100 mg/l, 72 hours

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

**SECTION 13: Disposal considerations**

**Disposal instructions:**

This product, in its present state, when discarded or disposed of, may be a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

**SECTION 14: Transport Information**

**US Department of Transportation Classification (49CFR)**

This material is not classified as dangerous under DOT regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations

**Environmental hazards**

Marine pollutant: No.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**  
No further relevant information available.

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.**  
None.

**SECTION 15: Regulatory Information**

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

**Toxic Substances Control Act (TSCA) –** All substances in this product are listed, as required or are exempt from the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** Yes

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** No components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** No components are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** No components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** No components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Class D2B (Toxic material).

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 20, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.



## Safety Data Sheet

### 1 - Identification

<b>Product Name:</b> Lava Bar <b>Product Use:</b> Hand Cleaner <b>Restrictions on Use:</b> None identified <b>SDS Date Of Preparation:</b> 08/21/2014	<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607 <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)
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### 2 – Hazards Identification

**Hazcom 2012/GHS Classification:**  
 Eye Irritant Category 2A

Note: This product is a cosmetic product and is labeled in accordance with the US Food and Drug Administration 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:



#### WARNING!

Causes serious eye irritation.

#### Prevention

Rinse hands thoroughly after use.

#### 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 or attention.

### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
Pumice	1332-09-8	10-30%	Not Hazardous
Coconut Acid	Mixture	<3%	Eye Damage Category 1
Titanium Dioxide	13463-67-7	0.1-1%	Carcinogen Category 2*
Non-Hazardous Ingredients	Mixture	Balance	Not Hazardous

Note: The exact percentages are a trade secret.

\* Carcinogen classification applies to respirable forms only. Not applicable to this product.

### 4 – First Aid Measures

**Ingestion (Swallowed):** If large amount is swallowed and symptoms occur, call a physician, poison control center, or the WD-40 Safety Hotline at 1-888-324-7596. Rinse mouth with water and give one eight-ounce glass of water to drink if the patient is conscious and responsive.

**Eye Contact:** Do not rub eyes. Flush immediately with large amounts of water. Get medical attention if irritation persists.  
**Skin Contact:** This product is intended for skin contact. Discontinue use and consult a physician if irritation develops and persists.  
**Inhalation (Breathing):** No first aid should be required.  
**Signs and Symptoms of Exposure:** May cause eye irritation.  
**Indication of Immediate Medical Attention/Special Treatment Needed:** Immediate medical attention is not required.

**5 – Fire Fighting Measures**

**Suitable (and unsuitable) Extinguishing Media:** Use any media that is appropriate for the surrounding fire.  
**Specific Hazards Arising from the Chemical:** None known.  
**Special Protective Equipment and Precautions for Fire-Fighters:** None required.

**6 – Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures:** None required.  
**Methods and Materials for Containment/Cleanup:** Pick up for use or place in trash.

**7 – Handling and Storage**

**Precautions for Safe Handling:** Avoid contact with eyes.  
**Conditions for Safe Storage:** No special storage required.

**8 – Exposure Controls/Personal Protection**

Chemical	Occupational Exposure Limits
Pumice	5 mg/m <sup>3</sup> (respirable), 15 mg/m <sup>3</sup> (total dust) OSHA PEL-TWA
Coconut Acid	None Established
Titanium Dioxide	15 mg/m <sup>3</sup> (total dust) OSHA PEL-TWA 10 mg/m <sup>3</sup> ACGIH TLV-TWA
Non-Hazardous Ingredients	None Established

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

**Appropriate Engineering Controls:** None required  
**Personal Protection:**  
**Eye Protection:** None required, avoid eye contact.  
**Skin Protection:** None required, this product is intended for skin contact.  
**Respiratory Protection:** None required.

**For Bulk Processing or Workplace Use the Following Controls are Recommended**

**Appropriate Engineering Controls:** Good general ventilation should be adequate.  
**Personal Protection:**  
**Eye Protection:** Safety goggles recommended if dust or mists are generated.  
**Skin Protection:** None required for anticipated use, this product is intended for skin contact.  
**Respiratory Protection:** None required.  
**Work/Hygiene Practices:** Rinse thoroughly after washing or handling.

**9 – Physical and Chemical Properties**

Appearance:	Green solid	Flammable Limits:	Not applicable
Odor:	Pleasant Fragrance	Vapor Pressure:	Not applicable
Odor Threshold:	Not established	Vapor Density:	Not applicable
pH:	Not Applicable	Relative Density:	>1
Melting/Freezing Point	Not applicable	Solubilities:	Soluble in water
Boiling Point/Range:	Not applicable	Partition Coefficient; n-	Not established

		octanol/water:	
Flash Point:	None	Autoignition Temperature:	Not established
Evaporation Rate:	Not applicable	Decomposition Temperature:	Not established
Flammability (solid, gas)	Not flammable	Viscosity:	Not applicable
VOC:	0%	Pour Point:	Not applicable

### 10 – Stability and Reactivity

**Reactivity:** Not reactive under normal conditions

**Chemical Stability:** Stable

**Possibility of Hazardous Reactions:** None known.

**Conditions to Avoid:** None known.

**Incompatible Materials:** None known.

**Hazardous Decomposition Products:** Combustion will produce oxides of carbon and nitrogen.

### 11 – Toxicological Information

**Symptoms of Overexposure:**

**Inhalation:** None known

**Skin Contact:** Prolonged contact may cause irritation in sensitive individuals.

**Eye Contact:** May cause irritation with redness, stinging and tearing. Pumice may cause abrasive injury to the eye.

**Ingestion:** Not intended for ingestion, however, not expected to be toxic. May cause gastrointestinal irritation.

**Chronic Effects:** None known.

**Carcinogen Status:** This product contains small amount of titanium dioxide, which is listed by IARC as a suspected carcinogen (Group 2B). Titanium dioxide only presents a risk of cancer by inhalation of very fine dust. In this product, the titanium dioxide is incorporated into the soap and is not present as a respirable dust. There is no exposure to respirable titanium dioxide dust in the normal use of this product. None of the other components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

**Reproductive Toxicity:** None of the components is considered a reproductive hazard.

**Numerical Measures of Toxicity:**

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg and the dermal toxicity greater than 2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria.

### 12 – Ecological Information

**Ecotoxicity:** No specific aquatic toxicity data is currently available, however components of this product are not expected to be harmful to aquatic organisms

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available

**Other Adverse Effects:** None known

### 13 - Disposal Considerations

Dispose in accordance with local, state and federal regulations.

### 14 – Transportation Information

Not regulated for Transportation by any mode

### 15 – Regulatory Information

**U.S. Federal Regulations:**

**CERCLA 103 Reportable Quantity:** This product is not subject to CERCLA reporting requirement. 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

**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 contain chemicals regulated under California Proposition 65.

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

**16 – Other Information:**

**HMIS Hazard Rating:**

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

Revision Date: August 21, 2014

Supersedes: January 8, 2009

Revision Summary: Convert to Hazcom 2012. Changes in all sections.

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

APPROVED By: I. Kowalski

Regulatory Affairs Dept.

3042200/No.0098003

1097000/No.0098003



Revision date: Initial version  
Date of issue: 04.28.2015

Page: 1/11

**Trade name:** Noalox<sup>®</sup> Anti Oxidant

**SECTION 1: Identification**

**Product identifier:** Noalox<sup>®</sup> Anti Oxidant.  
**Synonyms:** None available.  
**Product Code Number:** 30-024, 30-026, 30-030, 30-031, 30-032, 30-040.  
**SDS number:** ID019  
**Recommended use:** Anti oxidant.  
**Recommended restrictions:** Uses other than those recommended.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

*Physical hazards*

Not classified as a physical hazard under GHS criteria.

*Health hazards*

Specific target organ toxicity - repeated exposure, Category 1.

*Environmental hazards*

Acute aquatic toxicity, Category 2.

Chronic aquatic toxicity, Category 2.

**GHS Signal word:** DANGER.

**GHS Hazard statement(s):** Causes damage to organs through prolonged or repeated exposure.  
Toxic to aquatic life with long lasting effects.



**GHS Hazard symbol(s):**



**GHS Precautionary statement(s):**

**Prevention:**

P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/  
spray.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this  
product.  
P273 - Avoid release to the environment.

**Response:**

P314 - Get medical advice/ attention if you feel unwell.  
P391 - Collect spillage.

**Storage:**

No storage related statements required.

**Disposal:**

P501 - Dispose of contents/ container to an approved  
waste disposal plant.

**Hazard(s) not otherwise  
Classified (HNOC):**

None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

23% of the mixture consists of ingredients of unknown acute toxicity (oral/dermal/inhalation).

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
Zinc Dust	7440-66-6	15 - 20 %
Hydrophillic Fumed Silica	7631-86-9	1 - 5%

Note: The balance of the ingredients are not classified as hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** If inhaled, move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms persist.

**Skin contact:** In case of contact, Wash skin with soap and for at least 15 minutes. Remove contaminated clothing and thoroughly clean before reuse. Get medical attention if symptoms persist.

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

**Ingestion:** Induce vomiting and consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None normally expected. Upon prolonged contact, may cause temporary eye discomfort and organ damage.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet. If exposed or concerned: Get medical advice/attention.

#### **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Use dry chemical, carbon dioxide or foam.

**Unsuitable extinguishing media:** Do not use water. Water reacts with zinc dust.

**Specific hazards arising from the chemical:** Water or foam may cause a frothing reaction. Combustion products - Carbon monoxide, Carbon dioxide.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies. Keep fire exposed containers cool with water.

#### **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Stay upwind and away from spill/release. For large spillages, notify persons downwind 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.

**Methods and material for containment and cleaning up:**

Persons not wearing protective equipment should be excluded from area of spill until cleanup has been completed. Wipe up, shovel or vacuum spilled material. Clean up spills immediately. Use absorbent media. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required.

**SECTION 7: Handling and Storage**

**Precautions for safe handling:** Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:** Keep away from children, infants and pets. Keep in dry location. Keep container(s) tightly closed and properly labeled. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Store in dry conditions at temperatures between 40 - 120 F.

"Empty" containers retain residue and may be dangerous. "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.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Zinc Dust	No data available	No data available
Hydrophillic Fumed Silica	80 mg/m <sup>3</sup> /(% SiO <sub>2</sub> )	No data available

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Zinc Dust	No data available	No data available
Hydrophillic Fumed Silica	No data available	No data available

NIOSH Exposure Limits		
Substance	TWA	STEL

Zinc Dust	No data available	No data available
Hydrophillic Fumed Silica	6 mg/m <sup>3</sup>	No data available

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep dust below exposure limits.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of OSHA compliant safety glasses or splash goggles are recommended.

**Skin and Hand protection:** None normally required. Use neoprene gloves if necessary.

**Respiratory protection:** Where protection from nuisance levels of dusts are desired, use type N95 (US) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH/OSHA.

**Other:** An eye fountain in work area is recommended.

**Thermal hazards:** No data available.

**SECTION 9: Physical and chemical properties**

**Appearance**

- Physical state:** Paste
- Form:** Gray solid paste.
- Color:** Gray.
- Odor:** Mild odor.
- Odor threshold:** No data available
- pH:** 6.5 – 8.0
- Melting point/freezing point:** No data available
- Initial boiling point and boiling range:** > 500°F
- Flash point:** 310°F
- Evaporation rate:** No data available
- Flammability (solid, gas):** Not applicable
- Upper/lower flammability or explosive limits**
  - Flammability limit – lower (%):** Not applicable
  - Flammability limit – upper (%):** Not applicable
  - Explosive limit – lower (%):** Not applicable
  - Explosive limit – upper (%):** Not applicable
- Vapor pressure:** No data available
- Vapor density:** No data available
- Relative Density:** 1.04
- Solubility(ies):** Moderate.
- Partition coefficient (n-octanol/water):** No data available
- Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available  
**Viscosity:** No data available  
**Other information:**  
**% Volatile by volume:** None  
**Percent solids by weight:** ~ 100%

**SECTION 10: Stability and Reactivity**

**Reactivity:** Not chemically reactive.  
**Chemical stability:** Stable under normal ambient and anticipated conditions of use.  
**Possibility of hazardous reactions:** Hazardous reactions not anticipated.  
**Conditions to avoid:** Avoid conditions of moisture or high humidity.  
**Incompatible materials:** Avoid strong oxidizers, strong acids and water.  
**Hazardous decomposition Products:** Excessive heat and burning may release oxides of carbon.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure:**

**Inhalation:** Not an expected route of entry.  
**Ingestion:** Not an expected route of entry.  
**Skin:** Skin contact is a potential route of entry.  
**Eyes:** Not an expected route of entry.

**Symptoms related to the physical, chemical, and toxicological characteristics:**  
 None normally expected.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
 Upon prolonged contact, may cause temporary eye discomfort and damage to organs.

**Numerical measures of toxicity:**

**Ingredient Information:**

Substance	Test Type (species)	Value
Zinc Dust	LD <sub>50</sub> Oral (Rat)	No data available
	LD <sub>50</sub> Dermal (Rabbit)	No data available
	LC <sub>50</sub> Inhalation	No data available
Hydrophilic Fumed Silica	LD <sub>50</sub> Oral (Rat)	3160 mg/kg
	LD <sub>50</sub> Intravenous (Rat)	15 mg/kg
	LC <sub>50</sub> Inhalation (Rat)	> 200 gm/m <sup>3</sup> (1H)

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** No information available on the mixture, however none of the components have been classified to cause skin corrosion/irritation (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:** No information available on the mixture, however none of the components have been classified to cause eye damage/irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:** No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:** No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:** No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:** No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

**Reproductive toxicity:** No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Single exposure:** No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Repeat exposure:**

No information available on the mixture, however Hydrophilic Fumed Silica has been classified for STOT RE and may cause damage to organs over prolonged periods.

**Aspiration hazard:**

No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).

**Further information:**

No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Zinc Dust	LC <sub>50</sub>	Fish	No data available
	LC <sub>50</sub>	Aquatic crustacea	No data available
	EC <sub>50</sub>	Algae	No data available
Hydrophilic Fumed Silica	LC <sub>50</sub>	Fish	No data available
	LC <sub>50</sub>	Aquatic crustacea	No data available
	EC <sub>50</sub>	Algae	No data available

**Persistence and Degradability:** No data available

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

**SECTION 13: Disposal considerations**

**Disposal instructions:**

Contact a licensed professional waste disposal service to dispose of this material. The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

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 SDS 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.

**SECTION 14: Transport Information**

**US Department of Transportation Classification (49CFR)**

Identification number	UN 3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (contains Zinc dust)
Class / Division	9
Packing group	III
Poison Inhalation Hazard	No

**IMDG**

Identification number	UN 3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (contains Zinc dust)
Class / Division	9
Packing group	III

**IATA (Country variations may apply)**

Identification number	UN 3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (contains Zinc dust)
Class / Division	9
Packing group	III

**SECTION 15: Regulatory Information**

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are listed, as required, on the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**



None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**  
None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** Yes

**Chronic Health Hazard:** Yes

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: Zinc powder (stabilized).

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** Silica, crystalline (airborne particles of respirable size) is listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** Zinc powder (stabilized) and Silicon dioxide are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** Zinc powder (stabilized) and Silicon dioxide are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** Zinc powder (stabilized) and Silicon dioxide are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** D2B – Very Toxic Material

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: April 28, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.



SDS Manual

Lubricant



# SDS Manual

# Lubricant

- Clear Glide Wire-Pulling Lubricant 151
- Polywater J Lubricant 161
- Tap Magic ProTap 167
- Silicone Grease Compound 175
- 5810 Series 200 amp Industrial Loadbreak Elbows with Silicone Grease 183
- 5815 Series Modular Splice Adaptor Kits with Silicone Grease 185
- Cable Preparation Kit CC-3 197
- WD-40 Gallon 207
- WD-40 3-In-One with Telescoping Spout 211
- WD-40 Aerosol 215
- 3M Wire-Pulling Lubricant 220
- Yellow 77 Wire-Pulling Lubricant 229
- Aqua-Gel CW Wire-Pulling Lubricant 239



Revision  
date: 08.11.16

Date of issue: 05.02.2015

Page: 1/10

**Trade name:** Clear Glide™ Wire Pulling Lubricant

**SECTION 1: Identification**

**Product identifier:** Clear Glide™ Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** 31-388(-6), 31-381, 31-385(G), 31-2143.  
**SDS number:** ID006  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**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.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable.

**GHS Precautionary statement(s):**

**Prevention:** No prevention precautionary phrases.

**Response:** No response precautionary phrases.

**Storage:** No storage precautionary phrases.

**Disposal:** No disposal precautionary phrases.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable.

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	Concentration (weight %)	CAS#
Not applicable		

There are no ingredients present at above the cut off concentrations for GHS classification and therefore the product is not classified as hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** If inhaled, move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms persist.

**Skin contact:** In case of contact, Wash skin with soap and for at least 15 minutes. Remove contaminated clothing and thoroughly clean before reuse. Get medical attention if symptoms persist.

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

**Ingestion:** Administer water or milk. Do NOT induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None expected.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet. If exposed or concerned: Get medical advice/attention.

#### **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Not flammable. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected.  
Combustion products - Oxides of carbon, nitrogen and silicone.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

#### **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Stay upwind and away from spill/release. For large spillages, notify persons downwind 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.

**Methods and material for containment and cleaning up:**

Stop spill at source. Wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required.

#### **SECTION 7: Handling and Storage**

**Precautions for safe handling:** Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:** Store at temperatures between 40 - 180 F. Avoid freezing. Keep away from children, infants and pets. Keep in dry location. Keep container(s) tightly closed and properly labeled. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Avoid prolonged storage at temperatures exceeding 190 F.

"Empty" containers retain residue and may be dangerous. "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.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

<b>US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits</b>		
<b>Substance</b>	<b>PEL-TWA (8 hour)</b>	<b>PEL-STEL (15 min)</b>
2-Amino-2-methyl-1-propanol	None established	None established

<b>US ACGIH Threshold Limit Values</b>		
<b>Substance</b>	<b>TLV-TWA (8 hour)</b>	<b>TLV-STEL (15 min)</b>
2-Amino-2-methyl-1-propanol	None established	None established

<b>NIOSH Exposure Limits</b>		
<b>Substance</b>	<b>TWA</b>	<b>STEL</b>
2-Amino-2-methyl-1-propanol	None established	None established

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Additional means of room ventilation may be required in closed areas.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of OSHA compliant Safety glasses or splash goggles are recommended.

**Skin and Hand protection:** None normally required.



**Respiratory protection:** None normally required. Where protection from nuisance levels of dusts are desired, use type N95 (US) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH/OSHA.

**Other:** None required.

**Thermal hazards:** No data available.

### SECTION 9: Physical and chemical properties

#### Appearance

<b>Physical state:</b>	Gel
<b>Form:</b>	Clear, colorless gel.
<b>Color:</b>	Colorless.
<b>Odor:</b>	Slight odor.
<b>Odor threshold:</b>	No data available
<b>pH:</b>	7.0 - 8.0
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212°F (100°C)
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/lower flammability or explosive limits:</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	1.09
<b>Solubility(ies):</b>	Infinite in water.
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	25300-40300 cps
<b>Other information:</b>	
<b>% Volatile by volume:</b>	< 98%
<b>Volatile Organic Compounds (VOC) (as packaged, minus water)</b>	17.4 gms/ltr
<b>Percent solids by weight:</b>	~ 5%

### SECTION 10: Stability and Reactivity

**Reactivity:** Not chemically reactive.

**Chemical stability:** Stable under normal ambient and anticipated conditions of use.  
**Possibility of hazardous reactions:** Hazardous reactions not anticipated.  
**Conditions to avoid:** Avoid prolonged storage at temperatures exceeding 190 F.  
**Incompatible materials:** Avoid strong oxidizers and nitrites.  
**Hazardous decomposition Products:** Oxides of carbon, nitrogen and silicone.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure:**

**Inhalation:** Not an expected route of entry.  
**Ingestion:** Not an expected route of entry.  
**Skin:** Expected to be a primary route of entry.  
**Eyes:** Not an expected route of entry.

**Symptoms related to the physical, chemical, and toxicological characteristics:**  
None normally expected.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
Upon prolonged contact, may cause temporary eye discomfort.

**Numerical measures of toxicity:**  
**Ingredient Information:**

Substance	Test Type (species)	Value
2-Amino-2-methyl-1-propanol	LD <sub>50</sub> Oral (Rat)	2900 mg/kg
	LD <sub>50</sub> Dermal (Rabbit)	> 2000 mg/kg
	LC <sub>50</sub> Inhalation (Rat)	No data available

**Product Acute Toxicity Estimates:**  
Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** No information available on the mixture, however none of the components have been classified to cause skin corrosion/irritation (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:** No information available on the mixture, however none of the components have been classified to cause eye damage/irritation (or are below the concentration threshold for classification).

<b>Respiratory sensitization:</b>	No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).
<b>Skin sensitization:</b>	No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).
<b>Germ cell mutagenicity:</b>	No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).
<b>Carcinogenicity:</b>	No information available on the mixture, however none of the components have been classified for carcinogenicity (or are below the concentration threshold for classification).
<b>Reproductive toxicity:</b>	No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).
<b>Specific target organ toxicity- Single exposure:</b>	No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).
<b>Specific target organ toxicity- Repeat exposure:</b>	No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).
<b>Aspiration hazard:</b>	No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).
<b>Further information:</b>	No data available.

#### **SECTION 12: Ecological information**

##### **Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
2-Amino-2-methyl-1-propanol	LC <sub>50</sub>	Lepomis macrochirus (Bluegill sunfish)	190 mg/l (96h)
	LC <sub>50</sub>	Aquatic invertebrate – Daphnia magna (water flea)	193 mg/l (48h)
	EyC <sub>50</sub>	Algae - Scenedesmus sp	565.5 mg/l (72h)

**Persistence and Degradability:** No data available

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

**SECTION 13: Disposal considerations**

**Disposal instructions:**

Contact a licensed professional waste disposal service to dispose of this material. The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations. 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 SDS 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.

**SECTION 14: Transport Information**

**DOT:** This material is not classified as dangerous under DOT regulations.

**IATA:** This material is not classified as dangerous under IATA regulations.

**IMDG:** This material is not classified as dangerous under IMDG regulations.

**SECTION 15: Regulatory Information**

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**  
None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**  
None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III  
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No  
**Chronic Health Hazard:** No  
**Fire Hazard:** No  
**Pressure Hazard:** No  
**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**  
This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986:** None of the components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** None of the components are listed on the Massachusetts Right to Know List.

**Minnesota Hazardous Substance List:** None of the components are listed on the Minnesota Hazardous Substance List.

**New Jersey Right to Know:** None of the components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** None of the components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not hazardous under WHMIS

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 2, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.

# SAFETY DATA SHEET

## 1. Identification of the substance/mixture and of the company

### 1.1 Product identifier

**Product Name:**  
**Polywater® J Lubricant**

**Product ID numbers:** J-27, J-35, J-55, J-99, J-110, J-128, J-640, J-DRUM  
J-XXX (Where XXX is the package code.)

### 1.2 Relevant identified uses of the mixture and uses advised against

**Identified uses:** Cable and duct lubrication.

**List of advices against:** Not applicable.

### 1.3 Details of the supplier of the safety data sheet

#### Supplier/Manufacturer:

**American Polywater Corporation**  
11222 - 60th Street North  
Stillwater, MN 55082 USA  
Tel: 1-651-430-2270  
Email: sds@polywater.com

**Polywater Europe BV**  
Zuidhaven 9-11 Unit B2  
4761 CR Zevenbergen  
Netherlands  
Tel: +31 (0)10 2330578  
Email: sds@polywater.com

### 1.4 Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

## 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

This product contains no reportable hazardous components according to US Federal regulations.

#### Classification according to Regulation (EC) No 1272/2008

This product is not classified as dangerous according to EC criteria.

### 2.2 Label elements

**Pictograms:** None required.

**Hazard Statements:** None required.

### 2.3 Other hazards:

No information available.

## 3. Composition/Information on Ingredients

This product contains no reportable hazardous components under OSHA 29 CFR 1910.1200 (2012), Canada HPR (SOR/2015-17; WHMIS 2015), and European Regulation (EC) No 1272/2008.

## 4. First Aid Measures

### 4.1 Description of first aid measures

**Eye Contact:** Flush eyes with a large quantity of water for 15 minutes. If irritation continues, seek medical attention.

**Skin Contact:** If skin becomes irritated, wash area thoroughly with soap and water. If irritation continues, seek medical attention.

**Inhalation (Breathing):** No first aid expected to be required. Not an inhalation hazard.

**Ingestion (Swallowing):** No first aid expected to be required. If difficulties arise, contact a physician.

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

Aside from information above, no additional symptoms and effects are anticipated.

**4.3 Indication of immediate medical attention and special treatment needed.**

No information available.

**5. Firefighting Measures**

**5.1 Extinguishing media:**

Does not apply.

**5.2 Special hazards arising from the substance or mixture**

**Hazardous decomposition and by-products:**

High temperature steam, potentially carbon monoxide and carbon dioxide.

**5.3 Advice for firefighters**

Sealed container can build up pressure when exposed to high heat. Cool containers with water.

**6. Accidental Release Measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Lubricant is extremely slippery. It should be washed, swept, or squeegeed from floor using wet mops.

**6.2 Environmental precautions:**

Outside, spills should be covered with sand, dirt, gravel or calcium chloride.

**6.3 Methods materials for containment and cleaning up:**

Oxidizing agents, such as household bleach, can be used to eliminate the slippery character.

**6.4 Reference to other sections:**

Refer to Sections 4, 5, 8, and 13 for more information.

**7. Handling and Storage**

**7.1 Precautions for safe handling**

Avoid spills and clean them up immediately when they occur. Product is very slippery. For industrial or professional use only.

**7.2 Conditions for safe storage, including incompatibilities**

Keep product containers closed when not in use.

**7.3 Specific end uses**

See technical data sheet on this product for further information.

**8. Exposure Controls / Personal Protection**

**8.1 Control parameters**

**Exposure limits and recommendations:**

None

**8.2 Exposure controls**

**Respiratory protection:**

Normal ventilation is adequate.

**Protective gloves:**

For repeated or prolonged skin contact, the use of impermeable gloves is recommended to prevent drying and possible irritation.

**Eye protection:**

Safety glasses recommended.



**9. Physical and Chemical****9.1 Information of basic physical and chemical properties**

<b>Appearance:</b>	An opaque, cream-colored, stringy gel with a faint characteristic odor.
<b>Odor threshold:</b>	Not Available
<b>pH:</b>	7.5 to 9.0
<b>Freezing point:</b>	~ 32°F (0°C)
<b>Boiling point:</b>	~ 212°F (100°C)
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Product is not flammable
<b>Upper/lower flammability or explosive limits:</b>	Does not apply
<b>Vapor pressure:</b>	18mm Hg @ 72°F (22°C)
<b>Vapor density (Air = 1):</b>	0.9 – 1.1
<b>Specific gravity (H<sub>2</sub>O = 1):</b>	1.0
<b>Solubility in water:</b>	Dilutes
<b>Partition coefficient: n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Does not apply
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	25,000 – 40,000 cps. @ 10 rpm.

**9.2 Other Information**

<b>Volatiles (Weight %):</b>	>95%
<b>VOC Content:</b>	10 g/l

**10. Stability and Reactivity****10.1 Reactivity:**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability:**

Stable

**10.3 Possibility of hazardous reactions:**

None known.

**10.4 Conditions to avoid:**

None known.

**10.5 Incompatible materials :**

Avoid materials that react with water.

**10.6 Hazardous decomposition products:**

Carbon dioxide, carbon monoxide.

**11. Toxicological Information****11.1 Information on toxicological effects:****Acute toxicity****Eye contact:**

Direct eye contact may cause eye irritation. This irritation is minimal and expected to be transient.

**Skin contact:**

This product has low skin irritation potential. There is no dermal toxicity hazard.

**Irritation and Sensitization Potential:**

This product has low skin irritation potential. It is not a sensitizer.

**Inhalation (Breathing):**

No inhalation hazard expected with water vapor.

**Ingestion:**

Very low ingestion hazard.

Based on ingredients, LD<sub>50</sub> (rat) is estimated to be well over 50 g/kg.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic Exposure:**

**Reproductive Toxicity:** Not Available

**Mutagenicity:** Not Available

**Teratogenicity:** Not Available

**Toxicologically Synergistic Products:** Not Available

**Carcinogenic Status:** This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

**12. Ecological Information**

- 12.1 Ecotoxicity: No information available.
- 12.2 Persistence and degradability: No information available.
- 12.3 Bioaccumulation potential: No information available.
- 12.4 Mobility in soil: No information available.
- 12.5 Results of PBT and vPvB Assessment: This product is not, nor does it contain a substance that is a PBT or vPvB.
- 12.6 Other adverse effects: None known.

**13. Disposal Considerations**

Dispose of product in accordance with National and Local Regulations.

**14. Transport Information**

- UN Number: Not Listed
- UN Proper shipping name: Not Applicable
- Transport hazard class(es): Not Applicable
- Packing group: Not Applicable
- Environmental hazards: None known
- Special precautions: None known
- TDG: Not Regulated
- ICAO/IATA-DGR: Not Regulated
- IMDG: Not Regulated
- ADR/RID: Not Regulated

**15. Regulatory Information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**USA Federal and State**

All components are listed on the TSCA inventory.

<b>Hazard Categories for SARA Section 311/312 Reporting</b>	<u>Acute</u> No	<u>Chronic</u> No	<u>Fire</u> No	<u>Pressure</u> No	<u>Reactive</u> No
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<b>Components</b>	<b>CERCLA/SARA Sec 302 Hazardous Substance RQ</b>	<b>EHS TPQ</b>	<b>SARA Sec. 313 Toxic Release</b>
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Components are not affected by these Superfund regulations.

**NFPA Ratings:**

Health:	0
Fire:	0
Reactivity:	0

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

**California Proposition 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm or has been assessed to be below OEHHA Safe Harbor exposure levels required for labeling.

**European Union**

Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

**Canada**

All components are listed on the DSL inventory.  
This product has been classified according to the hazard criteria of the CPR.

**Australia**

All components are listed on the AICS.  
Not considered hazardous according to criteria of NOHSC Australia.

**15.2 Chemical Safety Assessment**

No chemical safety assessment has been carried out for the mixture by the supplier.

**16. Other Information**

**Abbreviations and acronyms:**

- OSHA = Occupational Safety and Health Administration
- CLP = Classification, Labeling and Packaging Regulation
- STOT = Specific Target Organ Toxicity
- LD<sub>50</sub> = Median Lethal Dose
- DNEL = Derived No Effect Level
- ACGIH = American Conference of Governmental Industrial Hygienists
- TSCA = Toxic Substances Control Act (USA)
- DSL = Domestic Substances List (Canada)
- AICS = Australian Inventory of Chemical Substances

<b>Revision Date:</b>	September 24, 2018
<b>Revision Number:</b>	8
<b>Supersedes:</b>	July 31, 2017
<b>Other:</b>	Not Applicable
<b>Indication of Changes:</b>	Section 15 updated; additional California Proposition 65 information. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (GHS format)

**Product Name:** Polywater® J Lubricant

**Revision Date:** September 24, 2018

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

## Tap Magic PROTAP

### SECTION 1: Identification of the substance/mixture and of the supplier

**Product name:** Tap Magic PROTAP

**Manufacturer/Supplier Article number:** 30004P, 30016P, 30128P, 30640P, 33840P, 37040P

**Special Notes on Product uses:** After use of this product, clean and lubricate metal surfaces to avoid staining and/or corrosion.

**Recommended uses of the product:** Machining, Cutting, Tapping, and Metal Processing.

**Manufacturer/Supplier Details:**  
 The Steco Corporation  
 2330 Cantrell Road  
 Little Rock, AR 72202 USA  
 Tel: 501-375-5644  
 Website: [www.tapmagic.com](http://www.tapmagic.com)  
 Email: [steco@tapmagic.com](mailto:steco@tapmagic.com)

**Emergency telephone number:** ChemTel Inc.: (800)255-3924, +1 (813)248-0585

### SECTION 2: Hazards identification

**Classification of the substance or mixture:**



GHS07  
*Skin Irrit. 2; H315*  
*Eye Irrit. 2; H319*  
*Skin Sens 1 H317*

**Signal word:** Warning.

**Hazard statements:**

- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.

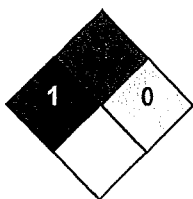
**Precautionary statements:**

- P264: Wash hands and exposed skin thoroughly after handling.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: Wear protective gloves, protective clothing, eye protection, and face 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 for 15 - 20 minutes.
- P337+P313: If eye irritation persists get medical advice/attention.
- P321: Specific treatment (Section 4).
- P362: Take off contaminated clothing and wash before reuse.
- P302+P352: IF ON SKIN: Wash with soap and water.
- P333+P313: If skin irritation or a rash occurs: Get medical advice/attention.
- P501: Dispose of contents/container as directed in Section 13.

**Hazards Not Otherwise Classified (HNOC):** None.

**Unknown Acute Toxicity:** No additional information.

#### NFPA/HMIS



NFPA SCALE (0-4)  
 Health = 1  
 Fire = 1  
 Reactivity = 0

HEALTH	1*
FIRE	1
PHYSICAL HAZARD	0

HMIS SCALE (0-4)  
 Health = 1\*  
 Fire = 1  
 Physical Hazard = 0

0=Minimal Hazard; 1=Slight Hazard; 2=Moderate Hazard; 3=Serious Hazard; 4=Severe Hazard.

## Tap Magic PROTAP

**SECTION 3: Composition/information on ingredients**

**Chemical characterization:** Mixture.

**Description:** Machining, cutting, tapping, and metal processing fluid.

**Hazardous components:** As listed below

CAS / Identifying No.	Description	Wt. %
CAS: 112-80-1	Oleic acid, pure <i>Skin Irrit. 2, H315; Eye Irrit. 2A, H319</i>	75 - 90%
CAS: 26523-78-4	Tris(mono-nonylphenyl) phosphite with 1% triisopropanolamine <i>Skin sens 1 H317; AqAc 1 H400, AqCh 1 H410</i>	0 - 5%

**SECTION 4: First aid measures****Description of first aid measures****General information:**

Take affected persons into fresh air, if feasible, or away from the source.

Consult a doctor/physician if concerned or feel unwell.

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest, provide artificial respiration.

**After inhalation:**

Supply fresh air; consult doctor in case of complaints.

If aspirated, seek medical attention immediately.

Provide oxygen treatment if affected person has difficulty breathing.

**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 at least 15 - 20 minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

Call for medical help immediately.

Do not induce vomiting.

If victim vomits, be sure to keep head below knees to prevent aspiration of vomitus into lungs.

If victim is unconscious, position on their side and support them so they cannot roll onto their back.

**Most important symptoms and effects, both acute and delayed:**

Breathing difficulty.

Coughing.

Irritant to skin and mucous membranes.

Skin sensitization

Slight irritant effect on eyes.

Gastric or intestinal disorders when ingested.

**Hazards:**

Danger of impaired breathing.

May cause respiratory irritation.

**Indication of any immediate medical attention and special treatment needed:**

Consult a doctor/physician if concerned or feel unwell.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use an extinguishing agent suitable for the surrounding fire.

## Tap Magic PROTAP

Foam.  
Carbon Dioxide.  
Dry Chemical.

**For safety reasons unsuitable extinguishing agents:** None known.  
**Special hazards arising from the substance or mixture:** Carbon monoxide.

**Advice for firefighters**

**Protective equipment:**

Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire.  
Wear fully protective suit.

**Hazardous Combustion Products:**

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

**Additional information:**

Cool endangered receptacles with water fog or haze.  
Use large quantities of foam as it is partially destroyed by the product.

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Use respiratory protective device against the effects of release.  
Wear protective equipment.  
Keep unprotected persons away.  
Ensure adequate ventilation.  
Particular danger of slipping on leaked/spilled product.

**Environmental precautions:**

For small spills, soak up with shop towels or absorbent material such as oil-dry or vermiculite.  
For large spills, any leaks should be stopped.  
Spill should be contained, then cleaned up using vacuum truck or absorbent material.

**Methods and material for containment and cleaning up:**

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.  
Dispose contaminated material as waste according to Section 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.

## SECTION 7: Handling and storage

**Precautions for safe handling:**

Prevent formation of aerosols.  
Avoid splashes or spray in enclosed areas.  
Use only in well ventilated areas.  
Prevent from freezing.  
\*\*After use of this product, clean and lubricate metal surfaces to avoid staining and/or corrosion.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.  
Avoid storage near extreme heat, ignition sources or open flame.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.  
Do not store together with alkalis/caustic solutions.  
Store away from foodstuffs.

**This SDS applies to part numbers: 30004P, 30016P, 30128P, 30640P, 33840P, 37040P**

Tap Magic PROTAP

**Further information about storage conditions:**

Store in cool, dry conditions in well-sealed containers.  
Store receptacle in a well-ventilated area.

**Information about fire and explosion protection:** No special measures required.

**SECTION 8: Exposure controls/personal protection**



Safety glasses



Protective gloves

**Control Parameters:** No applicable occupational exposure limits.

**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.

**Exposure controls:**

**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.  
Do not inhale gases / fumes / aerosols.

**Respiratory protection:**

Not required under normal conditions of use.  
Use suitable respiratory protective device when aerosol or mist is formed.  
Use suitable respiratory protective device in case of insufficient ventilation.  
Use respiratory protection when grinding or cutting material.  
For spills, respiratory protection may be advisable.

**Protection of hands:**

Protective gloves should be worn. The glove material has to be impermeable and resistant to the product. Selection of the glove material should be based on the penetration time, rates of diffusion and the degradation of the glove material. The exact break through time has to be determined by the manufacturer of the protective gloves.

**Eye protection:**

Contact lenses should not be worn.

**Body protection:**

Protective work clothing.



Tap Magic PROTAP

**SECTION 9: Physical and chemical properties**

<b>Appearance</b>		<b>Explosion limit</b>	
Physical state:	Liquid.	Lower:	Not determined.
Color:	Amber.	Upper:	Not determined.
Odor:	Mild.	Vapor pressure:	Not applicable.
Odor threshold:	Not determined.	Vapor density:	Not Determined.
pH-value:	Not applicable.	Density:	0.90 g/ml
Melting/Freezing point:	Not applicable.	Solubility:	Insoluble in water.
Boiling point/Boiling range:	Not determine.	Partition coefficient (n-octanol/water):	Not determined.
Flash point (closed cup):	372 ° F / 189 °C	Auto -ignition temperature:	680 ° F / 360 °C
Evaporation rate:	Not determined.	Decomposition temperature:	Not determined.
Flammability (solid, gaseous):	Not applicable.		
Viscosity:	17 Cst at 100° F		
Non-standard parameters: None noted.			

**SECTION 10: Stability and reactivity**

**Reactivity:** Not determined

**Chemical stability:**

Stable at ambient temperatures and pressure.

Elevated temperature and exposure to strong alkalis, oxidizers, and/or acids will promote decomposition.

At normal room temperatures, decomposition is virtually nil.

Exposure to strong direct sunlight may cause decomposition and discoloration of some components present in this product.

**Possible hazardous reactions:**

Reacts with strong oxidizing agents.

Reacts with strong acids and alkali.

Toxic fumes may be released if heated above the decomposition point.

**Conditions to avoid:** Store away from oxidizing agents.

**Incompatible materials:**

Contact with alkali materials.

Oxidizers.

Acids.

**Hazardous decomposition products:**

Carbon monoxide.

Carbon dioxide.

Phosphorus compounds.

Nitrogen oxides (NOx).

**SECTION 11: Toxicological information**

**Acute Toxicity:** No data available.

**Routes of Entry:** Inhalation, Ingestion, Skin, Eye.

**Acute effects (acute toxicity, irritation and corrosivity):** Classified as skin and eye irritant.

**Chronic Effects on Humans:**

Long term exposure without respiratory protection may lead to chronic cough, indigestion or respiratory dysfunction.

Exposure may cause and skin sensitization.

**Mutagenicity:** None known.

**Carcinogenicity:** None known.

**Tap Magic PROTAP**

**Reproductive Effects:** None known.  
**Other Effects on Humans:** None known.

**SECTION 12: Ecological information**

**Information on Eco-toxicological effects:**

**Toxicity:** No additional information.  
**Aquatic toxicity:** The material is not classified as harmful to the environment.  
**Repeated dose toxicity:** None known.  
**Persistence and degradability:** The product is not readily biodegradable.  
**Bioaccumulative potential:** No additional information.  
**Ecotoxicological effects:** No additional information.  
**Mobility in soil:** No additional information.  
**General notes:** Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste treatment methods**

**Recommendation:**

Product/containers must NOT be disposed together with household garbage.  
 Do not allow product to reach sewage system or open water.  
 It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11).  
 Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.  
 Suitable absorbents include non-combustible liquid-binding material (natural minerals such as clay, sand, diatomite; activated charcoal, man-made polymers such as HD polyethylene; acid binders, or universal binders, if they are non-biodegradable).

**Uncleaned packaging:**

**Recommendation:** Disposal must be made in accordance with all local, state and federal regulations.

**Component Waste Numbers:**

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

**SECTION 14: Transport information**

**US DOT Transportation Information**

**Proper shipping name:**

DOT, ADR, IMDG, IATA: Not Regulated.

**Hazard class:**

DOT, ADR, IMDG, IATA: Not Regulated.

**Packing group:**

DOT, ADR, IMDG, IATA: Not Regulated.

**Transport hazard class:**

Class: Not Regulated.

Label: None.

**Environmental hazards:**

Marine pollutant: No.

**Special precautions for user:**

Not applicable.

## Tap Magic PROTAP

## SECTION 15: Regulatory information

## United States (USA)

**General Product Information:** No additional information available.

**Component Analysis:** No additional information available.

The following is provided to aide in the preparation of SARA 311 and 312 reports.

## SARA 311/312

**Acute Health Hazard:** Yes.

**Chronic Health Hazard:** Yes.

**Fire Hazard:** No.

**Sudden Release of Pressure Hazard:** No

**Reactive Hazard:** No

**TSCA (Toxic Substances Control Act):** This product and/or all of its components are either included on, or exempt from the TSCA Inventory.

**Clean Air Act:** None of the ingredient is listed.

## Proposition 65 (California):

**Chemicals known to cause cancer:** None of the ingredient is listed.

**Chemicals known to cause reproductive toxicity for females:** None of the ingredient is listed.

**Chemicals known to cause reproductive toxicity for males:** None of the ingredient is listed.

**Chemicals known to cause developmental toxicity:** None of the ingredient is listed.

## Canada

**Canadian Domestic Substances List (DSL):** 373-49-9 Cis-Palmitoleic acid is not listed.

**Canadian Ingredient Disclosure list (limit 0.1%):** None of the ingredient is listed.

**Canadian Ingredient Disclosure list (limit 1%):** 112-80-1 Oleic acid, pure

## SECTION 16: Other information

**Effective date:** 12/31/2014 **US Only (GHS) Version**

This information is based on our present knowledge according to 29 CFR 1910/1200 and GHS Rev 3. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**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)

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Tap Magic SDS are available at [www.tapmagic.com](http://www.tapmagic.com)  
Document Group: "PROTAP\_USA\_EN\_Rev0"

**This SDS applies to part numbers: 30004P, 30016P, 30128P, 30640P, 33840P, 37040P**

**Tap Magic PROTAP**

**SDS Created by:**

Global Safety Management, Inc.  
10006 Cross Creek Blvd  
Tampa, FL, 33647  
Tel: 1-844-GSM-INFO (1-844-476-4636)  
Website: [www.GSMSDS.com](http://www.GSMSDS.com)



## Safety Data Sheet

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<b>Document Group:</b>	08-7299-4	<b>Version Number:</b>	3.00
<b>Issue Date:</b>	05/21/18	<b>Supersedes Date:</b>	11/22/13

### SECTION 1: Identification

#### 1.1. Product identifier

Silicone Grease Compound provided by Cooper Power Systems Division, Components and Protective Equipment

#### Product Identification Numbers

78-8124-4433-5

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Lubricant for power cable modular components, Lubricant grease for modular power cable accessories

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

##### Pictograms

Not applicable.

5% of the mixture consists of ingredients of unknown acute oral toxicity.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Poly(dimethylsiloxane)	63148-62-9	85 - 98
Hydrophobic fumed silica	68583-49-3	1 - 5
Amorphous silica	7631-86-9	1 - 10

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**Inhalation:**

No need for first aid is anticipated.

**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:**

No need for first aid is anticipated.

**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**

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**Hazardous Decomposition or By-Products**

Substance

Carbon monoxide  
Carbon dioxide

Condition

During Combustion  
During Combustion

**5.3. Special protective actions for fire-fighters**

No special protective actions for fire-fighters are anticipated.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

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. Observe precautions from other sections. 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.

**6.3. Methods and material for containment and cleaning up**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

For industrial or professional use only.

**7.2. Conditions for safe storage including any incompatibilities**

No special storage requirements.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

**8.2. Exposure controls**

**8.2.1. Engineering controls**

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**

None required.

**Skin/hand protection**

No chemical protective gloves are required.

**Respiratory protection**

None required.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<b>General Physical Form:</b>	Solid
<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	odorless, colorless to white, grease
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>

<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	400 °F [ <i>Test Method</i> :Cleveland Open Cup]
<b>Evaporation rate</b>	<=1 [ <i>Ref Std</i> :BUOAC=1]
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	Negligible
<b>Vapor Density</b>	Negligible [ <i>Ref Std</i> :AIR=1]
<b>Density</b>	<i>No Data Available</i>
<b>Specific Gravity</b>	1.03 [ <i>Ref Std</i> :WATER=1]
<b>Solubility in Water</b>	Nil
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<=1 % volume
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Formaldehyde	Oxidative Degradation

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:**

No known health effects.

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

No known health effects.

**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
Poly(dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Poly(dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Amorphous silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Amorphous silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Amorphous silica	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Amorphous silica	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Amorphous silica	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
Amorphous silica	Human and animal	Not classified

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value

Amorphous silica	In Vitro	Not mutagenic
------------------	----------	---------------

**Carcinogenicity**

Name	Route	Species	Value
Amorphous silica	Not Specified	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
Amorphous silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Amorphous silica	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

## 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.

### EPCRA 311/312 Hazard Classifications:

#### Physical Hazards

Not applicable

#### Health Hazards

Not applicable

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

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: 0 Flammability: 1 Instability: 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: 0 Flammability: 1 Physical Hazard: 0 Personal Protection: B

Hazardous Material Identification System (HMIS® IV) 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® IV ratings are to be used with a fully implemented HMIS® IV

program. HMIS® is a registered mark of the American Coatings Association (ACA).

<b>Document Group:</b>	08-7299-4	<b>Version Number:</b>	3.00
<b>Issue Date:</b>	05/21/18	<b>Supersedes Date:</b>	11/22/13

**Reason for Reissue**  
Conversion to GHS format SDS.

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<b>Document Group:</b>	08-7566-6	<b>Version Number:</b>	5.02
<b>Issue Date:</b>	09/22/16	<b>Supersedes Date:</b>	02/10/16

### Product identifier

5810 Series 200 Amp Industrial Loadbreak Elbows (w/C-Si Grease)

### ID Number(s):

80-6109-8729-1, 80-6109-8730-9, 80-6109-8767-1, 80-6109-8768-9, 80-6109-8770-5, 80-6109-8771-3, 80-6109-8780-4, 80-6109-8781-2, 80-6109-8782-0, 80-6109-8882-8, 80-6109-8883-6, 80-6109-8884-4, 80-6109-8885-1, 80-6109-8886-9, 80-6109-8887-7, 80-6109-8888-5, 80-6109-8889-3, 80-6109-8890-1, 80-6109-8891-9, 80-6109-8892-7, 80-6109-8893-5, 80-6109-8894-3, 80-6109-8895-0, 80-6109-8896-8, 80-6109-8897-6, 80-6109-8898-4, 80-6109-8899-2, 80-6109-8900-8, 80-6109-8902-4, 80-6109-8903-2, 80-6109-8904-0, 80-6109-8905-7, 80-6109-8908-1, 80-6109-8910-7, 80-6109-8911-5, 80-6109-8912-3, 80-6109-8913-1, 80-6109-8914-9, 80-6109-8915-6, 80-6109-8916-4, 80-6109-8918-0, 80-6109-8930-5, 80-6109-8931-3, 80-6109-8932-1, 80-6109-8933-9, 80-6109-8934-7

### Recommended use

Electric Power Cable Connections

### Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

### Emergency telephone number

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

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:**

36-4688-2, 11-4628-1, 08-7299-4, 34-7684-3

### Reason for Reissue

Conversion to GHS format SDS.

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<b>Document Group:</b>	35-8621-1	<b>Version Number:</b>	1.01
<b>Issue Date:</b>	09/22/16	<b>Supersedes Date:</b>	02/10/16

### Product identifier

5815 Series Modular Splice Adapter Kits (w/C-Si Grease)

### ID Number(s):

80-6108-3623-3, 80-6109-7019-8, 80-6109-8319-1, 80-6109-8321-7, 80-6109-8322-5, 80-6109-8323-3, 80-6109-8328-2, 80-6109-8343-1, 80-6109-8344-9, 80-6109-8345-6, 80-6109-8346-4, 80-6109-8347-2, 80-6109-8348-0, 80-6109-8350-6, 80-6109-8351-4, 80-6109-8352-2, 80-6109-8353-0, 80-6109-8449-6, 80-6109-8450-4, 80-6109-8451-2, 80-6109-8452-0, 80-6109-8453-8, 80-6109-8454-6, 80-6109-8455-3, 80-6109-8456-1, 80-6109-8457-9, 80-6109-8458-7, 80-6109-8460-3, 80-6109-8461-1, 80-6109-8501-4, 80-6112-0036-3, 80-6112-0037-1, 80-6112-0038-9, 80-6112-0039-7, 80-6112-0040-5, 80-6112-0041-3, 80-6112-0042-1, 80-6112-0043-9, 80-6112-0044-7, 80-6112-0045-4, 80-6112-0046-2, 80-6112-0047-0, 80-6112-0048-8, 80-6112-0049-6, 80-6112-0050-4, 80-6112-0051-2, 80-6112-0052-0, 80-6112-0053-8, 80-6112-0054-6, 80-6112-0055-3, 80-6112-0056-1, 80-6112-0060-3, 80-6112-0064-5, 80-6112-0065-2, 80-6112-0066-0, 80-6112-1144-4, 80-6112-1592-4, 80-6114-3571-2

### Recommended use

Electrical

### Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

### Emergency telephone number

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

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:**

36-4688-2, 11-4628-1, 08-7299-4, 34-7684-3

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<b>Document Group:</b>	11-4628-1	<b>Version Number:</b>	34.05
<b>Issue Date:</b>	02/15/18	<b>Supersedes Date:</b>	01/04/18

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Cable Preparation Kit CC-3 (Bag)

#### Product Identification Numbers

78-8018-9838-4, 78-8141-5782-8, 80-6105-9300-8

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical, Solvent soaked pads for cleaning cable.

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Flammable Liquid: Category 4.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Exclamation mark |

##### Pictograms

**Hazard Statements**

Combustible liquid.

Causes skin irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

**Precautionary Statements****Prevention:**

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

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Store locked up.

**Disposal:**

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

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Isoparaffinic Hydrocarbon	64742-48-9	50 - 70
Cotton pads	None	25 - 40
D-LIMONENE	5989-27-5	5 - 20

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

Rinse mouth. If you feel unwell, get 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**

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**5.2. Special hazards arising from the substance or mixture**

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

**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. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**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.

**6.3. Methods and material for containment and cleaning up**

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. 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 in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

#### **7.2. Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. 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**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### **8.2. Exposure controls**

#### **8.2.1. Engineering controls**

No engineering controls required.

#### **8.2.2. Personal protective equipment (PPE)**

##### **Eye/face protection**

Under normal use conditions, eye exposure is not expected to be significant enough to require eye protection.

##### **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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Nitrile Rubber  
Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile  
Apron - polymer laminate

##### **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 air-purifying respirator suitable for organic vapors

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**

<b>General Physical Form:</b>	Solid (Lint-free cloths soaked with liquid)
<b>Specific Physical Form:</b>	Cloth pads soaked in liquid in can or bag
<b>Odor, Color, Grade:</b>	citrus-like odor
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	7
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	380 °F - 480 °F
<b>Flash Point</b>	144 °F [ <i>Test Method: Closed Cup</i> ]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	< 1 mmHg [ <i>@ 25 °C</i> ]
<b>Vapor Density</b>	> 1 [ <i>Ref Std: AIR=1</i> ]
<b>Density</b>	0.76 g/ml
<b>Specific Gravity</b>	0.76 [ <i>Ref Std: WATER=1</i> ]
<b>Solubility in Water</b>	Nil
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	1.5 centipoise
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	Approximately 740 g/l
<b>VOC Less H2O &amp; Exempt Solvents</b>	760 g/l

## 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

Sparks and/or flames

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

## 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:

May be harmful if inhaled.

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

May cause additional health effects (see below).

##### Skin Contact:

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

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

##### Eye Contact:

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

##### Ingestion:

Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

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

May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause 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.

#### 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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE <sub>20</sub> - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Isoparaffinic Hydrocarbon	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
Isoparaffinic Hydrocarbon	Dermal	Rabbit	LD50 > 3,000 mg/kg
Isoparaffinic Hydrocarbon	Ingestion	Rat	LD50 > 5,000 mg/kg
D-LIMONENE	Inhalation-Vapor (4 hours)	Mouse	LC50 > 3.14 mg/l
D-LIMONENE	Dermal	Rabbit	LD50 > 5,000 mg/kg
D-LIMONENE	Ingestion	Rat	LD50 4,400 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Isoparaffinic Hydrocarbon	Rabbit	Irritant
D-LIMONENE	Rabbit	Mild irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Isoparaffinic Hydrocarbon	Rabbit	No significant irritation
D-LIMONENE	Rabbit	Mild irritant

**Skin Sensitization**

Name	Species	Value
Isoparaffinic Hydrocarbon	Guinea pig	Not classified
D-LIMONENE	Mouse	Sensitizing

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Isoparaffinic Hydrocarbon	In vivo	Not mutagenic
Isoparaffinic Hydrocarbon	In Vitro	Some positive data exist, but the data are not sufficient for classification
D-LIMONENE	In Vitro	Not mutagenic
D-LIMONENE	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Isoparaffinic Hydrocarbon	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Isoparaffinic Hydrocarbon	Inhalation	Human and animal	Some positive data exist, but the data are not sufficient for classification
D-LIMONENE	Ingestion	Rat	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
Isoparaffinic Hydrocarbon	Inhalation	Not classified for development	Rat	NOAEL 2.4 mg/l	during organogenesis
D-LIMONENE	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	prematuring & during gestation
D-LIMONENE	Ingestion	Not classified for development	Multiple animal species	NOAEL 591 mg/kg/day	during organogenesis

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
------	-------	-----------------	-------	---------	-------------	-------------------

Isoparaffinic Hydrocarbon	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isoparaffinic Hydrocarbon	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Isoparaffinic Hydrocarbon	Inhalation	nervous system	Not classified	Dog	NOAEL 6.5 mg/l	4 hours
Isoparaffinic Hydrocarbon	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
D-LIMONENE	Ingestion	nervous system	Not classified		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isoparaffinic Hydrocarbon	Inhalation	nervous system	Not classified	Rat	LOAEL 4.6 mg/l	6 months
Isoparaffinic Hydrocarbon	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.9 mg/l	13 weeks
Isoparaffinic Hydrocarbon	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.6 mg/l	90 days
Isoparaffinic Hydrocarbon	Inhalation	bone, teeth, nails, and/or hair   blood   liver   muscles	Not classified	Rat	NOAEL 5.6 mg/l	12 weeks
Isoparaffinic Hydrocarbon	Inhalation	heart	Not classified	Multiple animal species	NOAEL 1.3 mg/l	90 days
D-LIMONENE	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
D-LIMONENE	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
D-LIMONENE	Ingestion	heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	103 weeks

**Aspiration Hazard**

Name	Value
Isoparaffinic Hydrocarbon	Aspiration hazard
D-LIMONENE	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information 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. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, Dispose of waste product in a permitted industrial waste facility. 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.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## 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.

#### EPCRA 311/312 Hazard Classifications:

##### Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

##### Health Hazards

Respiratory or Skin Sensitization

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

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:** 2 **Instability:** 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:** \*2 **Flammability:** 2 **Physical Hazard:** 0 **Personal Protection:** B

Hazardous Material Identification System (HMIS® IV) 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® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

<b>Document Group:</b>	11-4628-1	<b>Version Number:</b>	34.05
<b>Issue Date:</b>	02/15/18	<b>Supersedes Date:</b>	01/04/18

### Reason for Reissue

Conversion to GHS format SDS.

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## Safety Data Sheet

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<b>Issue Date:</b>	02/15/18	<b>Supersedes Date:</b>	01/04/18

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Cable Preparation Kit CC-3 (Bag)

#### Product Identification Numbers

78-8018-9838-4, 78-8141-5782-8, 80-6105-9300-8

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical, Solvent soaked pads for cleaning cable.

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Flammable Liquid: Category 4.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Exclamation mark |

##### Pictograms

**Hazard Statements**

Combustible liquid.

Causes skin irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

**Precautionary Statements****Prevention:**

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

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Store locked up.

**Disposal:**

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

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Isoparaffinic Hydrocarbon	64742-48-9	50 - 70
Cotton pads	None	25 - 40
D-LIMONENE	5989-27-5	5 - 20

### SECTION 4: First aid measures

**4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

Rinse mouth. If you feel unwell, get 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**

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**5.2. Special hazards arising from the substance or mixture**

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

**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. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**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.

**6.3. Methods and material for containment and cleaning up**

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. 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 in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

**7.2. Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. 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**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

**8.2. Exposure controls**

**8.2.1. Engineering controls**

No engineering controls required.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Under normal use conditions, eye exposure is not expected to be significant enough to require eye protection.

**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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Nitrile Rubber  
Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile  
Apron - polymer laminate

**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 air-purifying respirator suitable for organic vapors

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**

<b>General Physical Form:</b>	Solid (Lint-free cloths soaked with liquid)
<b>Specific Physical Form:</b>	Cloth pads soaked in liquid in can or bag
<b>Odor, Color, Grade:</b>	citrus-like odor
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	7
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	380 °F - 480 °F
<b>Flash Point</b>	144 °F [ <i>Test Method</i> :Closed Cup]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	< 1 mmHg [ <i>@ 25 °C</i> ]
<b>Vapor Density</b>	> 1 [ <i>Ref Std</i> :AIR=1]
<b>Density</b>	0.76 g/ml
<b>Specific Gravity</b>	0.76 [ <i>Ref Std</i> :WATER=1]
<b>Solubility in Water</b>	Nil
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	1.5 centipoise
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	Approximately 740 g/l
<b>VOC Less H2O &amp; Exempt Solvents</b>	760 g/l

## 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

Sparks and/or flames

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

## 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:

May be harmful if inhaled.

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

May cause additional health effects (see below).

##### Skin Contact:

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

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

##### Eye Contact:

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

##### Ingestion:

Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

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

May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause 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.

#### 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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE <sub>20</sub> - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Isoparaffinic Hydrocarbon	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
Isoparaffinic Hydrocarbon	Dermal	Rabbit	LD50 > 3,000 mg/kg
Isoparaffinic Hydrocarbon	Ingestion	Rat	LD50 > 5,000 mg/kg
D-LIMONENE	Inhalation-Vapor (4 hours)	Mouse	LC50 > 3.14 mg/l
D-LIMONENE	Dermal	Rabbit	LD50 > 5,000 mg/kg
D-LIMONENE	Ingestion	Rat	LD50 4,400 mg/kg

ATE = acute toxicity estimate



**Skin Corrosion/Irritation**

Name	Species	Value
Isoparaffinic Hydrocarbon	Rabbit	Irritant
D-LIMONENE	Rabbit	Mild irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Isoparaffinic Hydrocarbon	Rabbit	No significant irritation
D-LIMONENE	Rabbit	Mild irritant

**Skin Sensitization**

Name	Species	Value
Isoparaffinic Hydrocarbon	Guinea pig	Not classified
D-LIMONENE	Mouse	Sensitizing

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Isoparaffinic Hydrocarbon	In vivo	Not mutagenic
Isoparaffinic Hydrocarbon	In Vitro	Some positive data exist, but the data are not sufficient for classification
D-LIMONENE	In Vitro	Not mutagenic
D-LIMONENE	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Isoparaffinic Hydrocarbon	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Isoparaffinic Hydrocarbon	Inhalation	Human and animal	Some positive data exist, but the data are not sufficient for classification
D-LIMONENE	Ingestion	Rat	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
Isoparaffinic Hydrocarbon	Inhalation	Not classified for development	Rat	NOAEL 2.4 mg/l	during organogenesis
D-LIMONENE	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	prematuring & during gestation
D-LIMONENE	Ingestion	Not classified for development	Multiple animal species	NOAEL 591 mg/kg/day	during organogenesis

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
------	-------	-----------------	-------	---------	-------------	-------------------

Isoparaffinic Hydrocarbon	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isoparaffinic Hydrocarbon	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Isoparaffinic Hydrocarbon	Inhalation	nervous system	Not classified	Dog	NOAEL 6.5 mg/l	4 hours
Isoparaffinic Hydrocarbon	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
D-LIMONENE	Ingestion	nervous system	Not classified		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isoparaffinic Hydrocarbon	Inhalation	nervous system	Not classified	Rat	LOAEL 4.6 mg/l	6 months
Isoparaffinic Hydrocarbon	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.9 mg/l	13 weeks
Isoparaffinic Hydrocarbon	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 0.6 mg/l	90 days
Isoparaffinic Hydrocarbon	Inhalation	bone, teeth, nails, and/or hair   blood   liver   muscles	Not classified	Rat	NOAEL 5.6 mg/l	12 weeks
Isoparaffinic Hydrocarbon	Inhalation	heart	Not classified	Multiple animal species	NOAEL 1.3 mg/l	90 days
D-LIMONENE	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
D-LIMONENE	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
D-LIMONENE	Ingestion	heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	103 weeks

**Aspiration Hazard**

Name	Value
Isoparaffinic Hydrocarbon	Aspiration hazard
D-LIMONENE	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information 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. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, Dispose of waste product in a permitted industrial waste facility. 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.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## 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

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##### Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

##### Health Hazards

Respiratory or Skin Sensitization

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

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The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

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:** 2 **Instability:** 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:** \*2 **Flammability:** 2 **Physical Hazard:** 0 **Personal Protection:** B

Hazardous Material Identification System (HMIS® IV) 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® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

<b>Document Group:</b>	11-4628-1	<b>Version Number:</b>	34.05
<b>Issue Date:</b>	02/15/18	<b>Supersedes Date:</b>	01/04/18

### Reason for Reissue

Conversion to GHS format SDS.

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3M USA SDSs are available at [www.3M.com](http://www.3M.com)



## Material Safety Data Sheet

### 1 - Chemical Product and Company Identification

<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607  <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)	<b>Chemical Name:</b> Organic Mixture  <b>Trade Name:</b> WD-40 Bulk Liquid  <b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion  <b>MSDS Date Of Preparation:</b> 3/11/10
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### 2 - Hazards Identification

#### Emergency Overview:

**DANGER!** Harmful or fatal if swallowed. Combustible Liquid. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition.

#### Symptoms of Overexposure:

**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.

**Skin Contact:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

**Eye Contact:** Contact may be irritating to eyes. May cause redness and tearing.

**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.

**Chronic Effects:** None expected.

**Medical Conditions Aggravated by Exposure:** Preexisting eye, skin and respiratory conditions may be aggravated by exposure.

#### Suspected Cancer Agent:

Yes    No

### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent
Aliphatic Hydrocarbon	64742-47-8	45-50
Petroleum Base Oil	64742-58-1 64742-53-6 64742-56-9 64742-65-0	<25
LVP Aliphatic Hydrocarbon	64742-47-8	12-18
Surfactant	Proprietary	<2
Non-Hazardous Ingredients	Mixture	<10

See Section 8 for Exposure Limits

### 4 - First Aid Measures

**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.

**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.  
**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.  
**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

#### 5 – Fire Fighting Measures

**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.  
**Special Fire Fighting Procedures:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water.  
**Unusual Fire and Explosion Hazards:** Combustible liquid and vapor. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

#### 6 – Accidental Release Measures

Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. 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.

#### 7 – Handling and Storage

**Handling:** Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use with adequate ventilation. Keep away from heat, sparks, hot surfaces and open flames. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children.  
**Storage:** Store in a cool, well-ventilated area, away from incompatible materials. NFPA 30 Class II Liquid.

#### 8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Aliphatic Hydrocarbon	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m <sup>3</sup> (inhalable) TWA 5 mg/m <sup>3</sup> TWA OSHA PEL
LVP Aliphatic Hydrocarbon	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)
Surfactant	None Established
Non-Hazardous Ingredients	None Established

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

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

#### Personal Protection:

**Eye Protection:** Avoid eye contact. Safety glasses or goggles recommended.

**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

**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

Boiling Point:	361 - 369°F (183 - 187°C)	Specific Gravity:	0.8 – 0.82 @ 60°F
Solubility in Water:	Insoluble	pH:	Not Applicable
Vapor Pressure:	1 psi @38°C (100°F) ASTM D323	Vapor Density:	Greater than 1
Percent Volatile:	70-75%	VOC:	412 grams/liter (49.5%)
Coefficient of Water/Oil Distribution:	Not Determined	Appearance/Odor	Light amber liquid/mild odor
Flash Point:	122°F (49°C) Tag Open Cup	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8.0%
Pour Point:	-63°C (-81.4°F ) ASTM D-97	Kinematic Viscosity:	2.79-2.96cSt @ 100°F

### 10 – Stability and Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** Avoid heat, sparks, flames and other sources of ignition.

**Incompatibilities:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

### 11 – Toxicological Information

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard. None of the components of this product is listed as a carcinogen or suspected carcinogen or is considered a reproductive hazard.

### 12 – Ecological Information

No data is currently available.

### 13 - Disposal Considerations

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. Dispose in accordance with federal, state, and local regulations.

### 14 – Transportation Information

DOT Surface Shipping Description: Exempted from Hazmat (49CFR 173.150 (F)) in non-bulk packagings. Bulk Packagings: NA1993, Combustible Liquid, n.o.s. (contains Petroleum Distillates), PG III  
IMDG Shipping Description: UN1268, Petroleum Distillates, n.o.s. 3, PG III

### 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

**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 contain chemicals regulated under California Proposition 65.

**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:** One of the components is listed on the NDSL. All of the other ingredients are listed on the Canadian Domestic Substances List or exempt from notification.

**Canadian WHMIS Classification:** Class B-3 (Combustible Liquid)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

**16 – Other Information:**

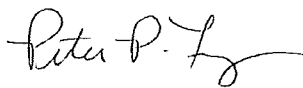
**HMIS Hazard Rating:**

**Health – 1 (slight hazard), Fire Hazard – 2 (moderate hazard), Reactivity – 0 (minimal hazard)**

Revision Date: March 2010

Supercedes: January 2010

SIGNATURE: \_\_\_\_\_



TITLE: Director of Global Quality Assurance

REVISION DATE: March 2010

SUPERSEDES: August 2009





**3-IN-ONE®**



## Safety Data Sheet



### 1 - Identification

<b>Product Name:</b> 3-IN-ONE® Telescoping Spout Multi-Purpose Oil  <b>Product Use:</b> Lubricant  <b>Restrictions on Use:</b> None identified  <b>SDS Date Of Preparation:</b> 07/31/2014	<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607  <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)
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### 2 – Hazards Identification

**Hazcom 2012/GHS Classification:**  
Not hazardous

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.

**Label Elements:**  
None Required

### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
Severely Hydrotreated Heavy Naphthenic Oil	64742-52-5	>97	Not hazardous
Naphtha, petroleum	64742-47-8	<2	Aspiration Toxicity Category 1
Non-Hazardous Ingredients	Mixture	<3	Not Hazardous

Note: The exact percentages are a trade secret.

### 4 – First Aid Measures

**Ingestion (Swallowed):** While aspiration is unlikely due to viscosity, DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

**Eye Contact:** Flush thoroughly with water. Get medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.

**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

**Signs and Symptoms of Exposure:** May cause mild eye irritation. Prolonged or repeated skin contact may cause mild irritation and defatting dermatitis.

**Indication of Immediate Medical Attention/Special Treatment Needed:** Immediate medical attention is needed for ingestion.

### 5 – Fire Fighting Measures

**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.

**Specific Hazards Arising from the Chemical:** Slightly combustible liquid. If heated above the flashpoint, will release flammable vapors that can present a fire or explosion hazard.

**Special Protective Equipment and Precautions for Fire-Fighters:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing in areas where chemicals are used and stored. Cool fire-exposed containers with water.

#### 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**Methods and Materials for Containment/Cleanup:** 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.

#### 7 – Handling and Storage

**Precautions for Safe Handling:** Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing oil mists. Use with adequate ventilation. Keep away from heat, hot surfaces and open flames. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area, away from incompatible materials. NFPA Class III B Liquid.

#### 8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Severely Hydrotreated Heavy Naphthenic Oil	5 mg/m <sup>3</sup> TWA ACGIH TLV (Inhalable) 5 mg/m <sup>3</sup> TWA OSHA PEL
Naphtha, petroleum	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)
Non-Hazardous Ingredients	None Established

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

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

**Personal Protection:**

**Eye Protection:** Avoid eye contact.

**Skin Protection:** Avoid prolonged skin contact. Wash hands with soap and water after use.

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

**For Bulk Processing or Workplace Use the Following Controls are Recommended**

**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:	Clear amber liquid	Flammable Limits:	Not determined
Odor:	Faint citronella odor	Vapor Pressure:	Not Determined
Odor Threshold:	Not established	Vapor Density:	Not Determined
pH:	Not Applicable	Relative Density:	0.866-0.923 @ 20°C
Melting/Freezing Point	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	>550°F	Partition Coefficient; n-octanol/water:	Not Determined
Flash Point:	Greater than 305°F Tag	Autoignition	Not Determined

	Open Cup	Temperature:	
Evaporation Rate:	Not Determined	Decomposition Temperature:	Not Determined
Flammability (solid, gas)	Not applicable	Viscosity:	112 SUS (23.31 cSt) @ 100°F
VOC:	0%	Pour Point:	Not Determined

#### 10 – Stability and Reactivity

**Reactivity:** Not reactive under normal conditions  
**Chemical Stability:** Stable  
**Possibility of Hazardous Reactions:** May react with strong oxidizers generating heat.  
**Conditions to Avoid:** Avoid heat, flames and other sources of ignition.  
**Incompatible Materials:** Strong oxidizing agents.  
**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

#### 11 – Toxicological Information

**Symptoms of Overexposure:**  
**Inhalation:** High concentrations of oil mists may cause nasal and respiratory irritation.  
**Skin Contact:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.  
**Eye Contact:** Contact may be irritating to eyes. May cause redness and tearing.  
**Ingestion:** This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea.  
**Chronic Effects:** None expected.  
**Carcinogen Status:** None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.  
**Reproductive Toxicity:** None of the components is considered a reproductive hazard.

#### Numerical Measures of Toxicity:

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg and the dermal toxicity greater than 2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria.

#### 12 – Ecological Information

**Ecotoxicity:** No specific aquatic toxicity data is currently available, however components of this product are not expected to be harmful to aquatic organisms  
**Persistence and Degradability:** Component are not readily biodegradable.  
**Bioaccumulative Potential:** No data available.  
**Mobility in Soil:** No data available  
**Other Adverse Effects:** None known

#### 13 - Disposal Considerations

If this product becomes a waste, it would not be expected to meet the criteria of a RCRA of a hazardous waste. However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations.

#### 14 – Transportation Information

DOT Surface Shipping Description: Not Regulated  
IMDG Shipping Description: Not Regulated  
ICAO Shipping Description: Not Regulated  
NOTE: WD-40 does not test containers to assure that they can withstand the pressure change without leakage when transported by air. We do not recommend that our products be transported by air unless a specific review is conducted.

## 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:** Non-Hazardous.

**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 contain chemicals regulated under California Proposition 65.

**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, Canadian Non-Domestic Substances List, or exempt from notification

**Canadian WHMIS Classification:** Not a controlled product.

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

## 16 – Other Information:

### HMIS Hazard Rating:

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

Revision Date: July 31, 2014

Supersedes: New SDS

Revision Summary: Convert to Hazcom 2012. Changes in all sections.

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

APPROVED BY: I. Kowalski Regulatory Affairs Dept.

**WD-40**

## Safety Data Sheet

### 1 - Identification

<b>Product Name:</b> WD-40 Multi-Use Product Aerosol <b>NOT FOR SALE IN CALIFORNIA</b>  <b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion  <b>Restrictions on Use:</b> None identified  <b>SDS Date Of Preparation:</b> 07/20/2014	<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607  <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)
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### 2 - Hazards Identification

**Hazcom 2012/GHS Classification:**

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

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.

**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**

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

**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
Aliphatic Hydrocarbon	64742-47-8	45-50	Flammable Liquid Category 3

Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<25	Aspiration Toxicity Category 1 Not Hazardous
LVP Aliphatic Hydrocarbon	64742-47-8	12-18	Aspiration Toxicity Category 1
Carbon Dioxide	124-38-9	2-3	Simple Asphyxiant Gas Under Pressure, Compressed Gas
Non-Hazardous Ingredients	Mixture	<10	Not Hazardous

Note: The exact percentages are a trade secret.

#### 4 – First Aid Measures

**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.

**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.

**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.

**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

**Signs and Symptoms of Exposure:** May cause eye and respiratory irritation. Inhalation may cause coughing, headache and dizziness. Skin contact may cause drying of the skin.

**Indication of Immediate Medical Attention/Special Treatment Needed:** Immediate medical attention is needed for ingestion.

#### 5 – Fire Fighting Measures

**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.

**Specific Hazards Arising from the Chemical:** 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.

**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.

#### 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**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.

#### 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
Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m3 TWA, 10 mg/m3 STEL ACGIH TLV 5 mg/m3 TWA OSHA PEL
LVP Aliphatic Hydrocarbon	1200 mg/m3 TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA (OSHA/ACGIH), 30,000 ppm STEL (ACGIH)
Non-Hazardous Ingredients	None Established

**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:	122°F (49°C) Tag Closed Cup (concentrate)	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:	412 grams/liter (49.5%)	Pour Point:	-63°C (-81.4°F) ASTM D-97

**10 – Stability and Reactivity**

**Reactivity:** Not reactive under normal conditions

**Chemical Stability:** Stable

**Possibility of Hazardous Reactions:** May react with strong oxidizers generating heat.  
**Conditions to Avoid:** Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.  
**Incompatible Materials:** Strong oxidizing agents.  
**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

#### 11 – Toxicological Information

**Symptoms of Overexposure:**

**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.

**Skin Contact:** Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

**Eye Contact:** Contact may be irritating to eyes. May cause redness and tearing.

**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.

**Chronic Effects:** None expected.

**Carcinogen Status:** None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

**Reproductive Toxicity:** None of the components is considered a reproductive hazard.

**Numerical Measures of Toxicity:**

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg and the dermal toxicity greater than 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.

#### 12 – Ecological Information

**Ecotoxicity:** No specific aquatic toxicity data is currently available, however components of this product are not expected to be harmful to aquatic organisms

**Persistence and Degradability:** Component are readily biodegradable.

**Bioaccumulative Potential:** Bioaccumulation is not expected based on an assessment of the ingredients.

**Mobility in Soil:** No data available

**Other Adverse Effects:** None known

#### 13 - Disposal Considerations

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.

#### 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 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.

**VOC Regulations:** This product complies with the consumer product VOC limits of the US EPA and states adopting the OTC VOC rules but does not comply with CARB.

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):** This product does not contain chemicals regulated under California Proposition 65.

**Canadian Environmental Protection Act:** One of the components is listed on the NDSL. All of the other ingredients are listed on the Canadian Domestic Substances List or exempt from notification.

**Canadian WHMIS Classification:** Class A (Compressed gas), Class B-5 (Flammable Aerosol)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

**16 – Other Information:**

**HMIS Hazard Rating:**

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

Revision Date: July 20, 2014

Supersedes: May 23, 2014

Revision Summary: Convert to Hazcom 2012. Changes in all sections.

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

APPROVED By: I. Kowalski

Regulatory Affairs Dept.



## Safety Data Sheet

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<b>Issue Date:</b>	05/21/18	<b>Supersedes Date:</b>	11/12/13

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Wire Pulling Lubricant - WL Series (WL-QT, WL-1, WL-5)

#### Product Identification Numbers

80-6107-3662-3, 80-6107-3663-1, 80-6107-3664-9, 80-6107-3665-6, 80-6107-3931-2, 80-6108-3578-9, 80-6114-9092-3

#### 1.2. Recommended use and restrictions on use

##### Recommended use

lubricant, wire pulling, LUBRICANT, WIRE PULLING

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

##### Pictograms

Not applicable.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	95 - 99
GLYCOLS, POLYPROPYLENE	25322-69-4	0.1 - 2 Trade Secret *
POLYETHYLENE GLYCOL	25322-68-3	0.1 - 2
SODIUM POLYACRYLATE	9003-04-7	0.1 - 1

\*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:

No need for first aid is anticipated.

#### 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:

Rinse mouth. If you feel unwell, get 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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Material will not burn. Use a fire fighting agent suitable for the surrounding fire. Non-combustible. Use a fire fighting agent suitable for surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### Hazardous Decomposition or By-Products

##### Substance

Carbon monoxide  
Carbon dioxide

##### Condition

During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. 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

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. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
POLYETHYLENE GLYCOL	25322-68-3	AIHA	TWA(as particulate):10 mg/m <sup>3</sup>	
GLYCOLS, POLYPROPYLENE	25322-69-4	AIHA	TWA(as aerosol):10 mg/m <sup>3</sup>	

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

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

Under normal use conditions, eye exposure is not expected to be significant enough to require eye protection.

##### Skin/hand protection

No protective gloves required.

### Respiratory protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Gel
Odor, Color, Grade:	OPAQUE;WHITE;NO ODOR
Odor threshold	<i>No Data Available</i>
pH	6.5 - 8.5
Melting point	<i>Not Applicable</i>
Boiling Point	100 °C
Flash Point	No flash point
Evaporation rate	<i>No Data Available</i>
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	18 mmHg [ <i>@ 68.0000000000 °F</i> ] [ <i>Details:@20C MITS data</i> ]
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	.9 - 1.1 [ <i>Ref Std: AIR=1</i> ]
Vapor Density	<i>Not Applicable</i>
Density	<i>Not Applicable</i>
Specific Gravity	1.01 [ <i>Ref Std: WATER=1</i> ]
Solubility in Water	Complete
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>Not Applicable</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	110,000 - 115,000 centipoise
Average particle size	<i>Not Applicable</i>
Bulk density	<i>Not Applicable</i>
Hazardous Air Pollutants	<i>Not Applicable</i>
Molecular weight	<i>Not Applicable</i>
Volatile Organic Compounds	0 lb/gal
Percent volatile	0 %
Softening point	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	0 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

None known.

Not Applicable

**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:**

No known health effects.

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

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

**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
GLYCOLS, POLYPROPYLENE	Dermal	Rabbit	LD50 > 10,000 mg/kg
POLYETHYLENE GLYCOL	Dermal	Rabbit	LD50 > 20,000 mg/kg
GLYCOLS, POLYPROPYLENE	Ingestion	Rat	LD50 > 2,000 mg/kg
POLYETHYLENE GLYCOL	Ingestion	Rat	LD50 32,770 mg/kg
SODIUM POLYACRYLATE	Dermal	Rabbit	LD50 > 5,000 mg/kg

SODIUM POLYACRYLATE	Ingestion	Rat	LD50 > 2,000 mg/kg
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ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
GLYCOLS, POLYPROPYLENE	Rabbit	No significant irritation
POLYETHYLENE GLYCOL	Rabbit	Minimal irritation
SODIUM POLYACRYLATE	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
GLYCOLS, POLYPROPYLENE	Rabbit	No significant irritation
POLYETHYLENE GLYCOL	Rabbit	Mild irritant
SODIUM POLYACRYLATE	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
POLYETHYLENE GLYCOL	Guinea pig	Not classified

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
POLYETHYLENE GLYCOL	In Vitro	Not mutagenic
POLYETHYLENE GLYCOL	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
POLYETHYLENE GLYCOL	Ingestion	Rat	Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
POLYETHYLENE GLYCOL	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,125 mg/kg/day	during gestation
POLYETHYLENE GLYCOL	Ingestion	Not classified for male reproduction	Rat	NOAEL 5699 +/- 1341 mg/kg/day	5 days
POLYETHYLENE GLYCOL	Not Specified	Not classified for reproduction and/or development		NOEL N/A	
POLYETHYLENE GLYCOL	Ingestion	Not classified for development	Mouse	NOAEL 562 mg/animal/day	during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
POLYETHYLENE GLYCOL	Inhalation	respiratory irritation	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
POLYETHYLENE GLYCOL	Inhalation	respiratory system	Not classified	Rat	NOAEL 1.008 mg/l	2 weeks
POLYETHYLENE GLYCOL	Ingestion	kidney and/or bladder   heart   endocrine system   hematopoietic system   liver   nervous system	Not classified	Rat	NOAEL 5,640 mg/kg/day	13 weeks

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

EPA Hazardous Waste Number (RCRA): Not regulated

**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.

**EPCRA 311/312 Hazard Classifications:****Physical Hazards**

Not applicable

**Health Hazards**



Not applicable

#### 15.2. State Regulations

Contact 3M for more information.

#### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

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: 0 Flammability: 0 Instability: 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.

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Revision date: Initial version  
Date of issue: 05.12.2015

Page: 1/10

**Trade name:** YELLOW 77<sup>®</sup> Wire Pulling Lubricant

**SECTION 1: Identification**

**Product identifier:** YELLOW 77<sup>®</sup> Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** 31-358, 31-351, 31-355, 31-365.  
**SDS number:** ID023  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

*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.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable

**GHS Precautionary statement(s):**

**Prevention:**

No prevention precautionary statements required.

**Response:**

No response precautionary statements required

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R. 1910.1200		

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Move to fresh air. Get medical attention if symptoms develop.

**Skin contact:** Wash off with warm water and soap for 15 minutes. Get medical attention if irritation develops or persists.

**Eye contact:** Flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Ingestion:** Induce vomiting. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** None normally expected. Upon prolonged contact, may cause temporary eye discomfort. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet.

#### **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Not flammable by OSHA criteria. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** None expected.

Combustion products - Excessive heat and burning may release oxides of carbon and nitrogen.

**Special protective equipment and precautions for fire-fighters:** Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do so without risk. For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

#### **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** 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.

**Methods and material for containment and cleaning up:**

Wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery.

#### **SECTION 7: Handling and Storage**

**Precautions for safe handling:** Keep away from children, infants and pets. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:**

Store at temperatures between 40 - 120° F. Avoid freezing.

#### **SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Not applicable		

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Not applicable		

USA. Workplace Environmental Exposure Levels (WEEL)		
Substance	TWA	STEL
Not applicable		

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep mists below exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of safety glasses or splash goggles are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

**Skin and Hand protection:** None normally required. If worn, use neoprene. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** No personal respiratory protective equipment normally required.

**Other:** Eye fountain in work area is recommended.

**Thermal hazards:** No data available.

**SECTION 9: Physical and chemical properties**

**Appearance**

**Physical state:** Paste  
**Form:** Yellow creamy paste.  
**Color:** Yellow.  
**Odor:** Slight odor.  
**Odor threshold:** No data available

<b>pH:</b>	6.5-8.0.
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	212°F 100°C
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	The product is not flammable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	0.97-0.99
<b>Solubility(ies):</b>	Moderate
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	81000 cps @ 1 rpm 158°F 87500 cps @ 1 rpm 77°F
<b>Other information:</b>	
<b>Percent volatile by volume (%):</b>	< 90%
<b>Percent solid by weight:</b>	~20%

#### SECTION 10: Stability and Reactivity

<b>Reactivity:</b>	Not chemically reactive.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated conditions of use.
<b>Possibility of hazardous reactions:</b>	Hazardous reactions not anticipated.
<b>Conditions to avoid:</b>	None expected.
<b>Incompatible materials:</b>	Avoid strong oxidizers.
<b>Hazardous decomposition Products:</b>	Excessive heat and burning may release oxides of carbon and nitrogen.

#### SECTION 11: Toxicological information

##### Information on likely routes of exposure:

<b>Inhalation:</b>	Not an expected route of entry.
<b>Ingestion:</b>	Not an expected route of entry.
<b>Skin:</b>	Skin contact is a primary route of entry.
<b>Eyes:</b>	Not an expected route of entry.

##### Symptoms related to the physical, chemical, and toxicological characteristics:

None normally expected. If material is used in extreme heat (>120° F), prolonged and repeated exposure could pose a risk of pulmonary disease.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
Upon prolonged contact, may cause temporary eye discomfort.

**Numerical measures of toxicity:**  
**Ingredient Information:**

Substance	Test Type (species)	Value
Not applicable	LD <sub>50</sub> Oral (Rat)	
	LD <sub>50</sub> Dermal (Rabbit)	
	LC <sub>50</sub> Inhalation (Rat)	

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** No information available on the mixture, however none of the components have been classified as skin corrosive/irritant (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:** No information available on the mixture, however none of the components have been classified as causing eye damage/eye irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:** No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

**Skin sensitization:** No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:** No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

**Carcinogenicity:** No information available on the mixture, however none of the components are listed in the National



Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

**Reproductive toxicity:**

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Single exposure:**

No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

**Specific target organ toxicity-  
Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

**Aspiration hazard:**

No information available on the mixture, however none of the components have been classified for Aspiration hazard (or are below the concentration threshold for classification).

**Further information:**

No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Not applicable	LC <sub>50</sub>	Fish	
	LC <sub>50</sub>	Aquatic Invertebrates	
	EC <sub>50</sub>	Algae	

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.  
**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

**Disposal instructions:**

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

### SECTION 14: Transport Information

**US Department of Transportation Classification (49CFR)**

This material is not classified as dangerous under DOT regulations.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is not classified as dangerous under IATA regulations

**Environmental hazards**

Marine pollutant: No.

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)**

No further relevant information available.

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.**  
None.

### SECTION 15: Regulatory Information

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is not hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are exempt from the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** No components are listed on Prop 65 as a carcinogen.

**Massachusetts Right to Know:** No components are listed on the Massachusetts Right to Know List.

**New Jersey Right to Know:** No components are listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** No components are listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not applicable.

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 12, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.



Revision date: Initial version  
Date of issue: 04.24.2015

Page: 1/10

**Trade name:** Aqua-Gel® CW Wire Pulling Lubricant

**SECTION 1: Identification**

**Product identifier:** Aqua-Gel® CW Wire Pulling Lubricant.  
**Synonyms:** None available.  
**Product Code Number:** 31-298, 31-291, 31-295.  
**SDS number:** ID003  
**Recommended use:** Wire Pulling Lubricant.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**

**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

*Physical hazards*

Not classified as a physical hazard under GHS criteria

*Health hazards*

Skin corrosion/irritation, Category 2.  
Serious eye damage/eye irritation, Category 2.

*Environmental hazards*

Not classified as a physical hazard under GHS criteria.

**GHS Signal word:** WARNING.

**GHS Hazard statement(s):** Causes skin irritation.  
Causes serious eye irritation.

**GHS Hazard symbol(s):**



**GHS Precautionary statement(s):**

- Prevention:** P264 - Wash skin thoroughly after handling.  
P280 - Wear protective gloves/eye protection/face protection.
- Response:** 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.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/ attention.  
P362 - Take off contaminated clothing and wash before reuse.
- Storage:** No storage precautionary statements.
- Disposal:** No disposal precautionary statements.

**Hazard(s) not otherwise Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**  
Not applicable.

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
Potassium Hydroxide (20% solution)	1310-58-3	< 2%

Note: The balance of the ingredients are not classified as hazardous or below the threshold concentration, under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

#### SECTION 4: First-aid Measures

**Description of necessary measures:**

**Inhalation:** If inhaled, move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms persist.

**Skin contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and thoroughly clean before reuse. Get medical attention if symptoms persist.

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

**Ingestion:** If swallowed, administer water or milk. Do NOT induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Consult physician or local poison control center.

**Most important symptoms/effects, acute and delayed:** Causes skin irritation. Causes serious eye irritation.

**Indication of immediate medical attention and special treatment needed:** If any symptoms are observed, contact a physician and give them this SDS sheet. If exposed or concerned: Get medical advice/attention.

#### SECTION 5: Fire-fighting measures

**Suitable extinguishing media:** Not flammable. Use extinguishing media suitable for surrounding materials.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** Extreme temperatures of combustion or burning and contact with nitrites could result in the formation of nitrosamines which are potential carcinogens.

Combustion products - Carbon monoxide, Carbon dioxide. Oxides of Nitrogen.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies.

#### SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Stay upwind and away from spill/release. For large spillages, notify persons downwind 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.

**Methods and material for containment and cleaning up:**

Persons not wearing protective equipment should be excluded from area of spill until cleanup has been completed. Stop spill at source, wipe up, shovel or vacuum spilled material. Clean up spills immediately as they can be dangerously slippery. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required.

**SECTION 7: Handling and Storage**

**Precautions for safe handling:** Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

**Conditions for safe storage, including any incompatibles:** Store at temperatures between -40 and 180°F. Keep away from children, infants and pets. Keep container(s) tightly closed and properly labeled. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

"Empty" containers retain residue and may be dangerous. "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.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Potassium Hydroxide	No data available	No data available

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Potassium Hydroxide	2 mg/m <sup>3</sup> Ceiling	No data available

NIOSH Exposure Limits		
Substance	TWA	STEL
Potassium Hydroxide	2 mg/m <sup>3</sup> Ceiling	No data available



**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is suggested at points where vapors can be expected to escape to the workplace air or in enclosed areas.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** None normally required, but the use of OSHA compliant safety glasses or splash goggles recommended.

**Skin and Hand protection:** None normally needed -Neoprene if necessary. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection:** None normally required.

**Other:** Eye wash / eye bath in the work area is recommended but not necessary.

**Thermal hazards:** No data available.

**SECTION 9: Physical and chemical properties**

<b>Appearance</b>	
<b>Physical state:</b>	Gel
<b>Form:</b>	Clear gel.
<b>Color:</b>	Red.
<b>Odor:</b>	Mild odor.
<b>Odor threshold:</b>	No data available
<b>pH:</b>	6.5 – 8.0
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	100°C (212°F)
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	No data available
<b>Flammability limit – upper (%):</b>	No data available
<b>Explosive limit – lower (%):</b>	No data available
<b>Explosive limit – upper (%):</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	1.09-1.11
<b>Solubility(ies):</b>	Infinite.
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	10000-15000 cps

**Other information:**

**% Volatile by volume:** < 45%  
**Percent solids by weight:** ~ 60%

**SECTION 10: Stability and Reactivity**

**Reactivity:** Not chemically reactive.  
**Chemical stability:** Stable under normal ambient and anticipated conditions of use.  
**Possibility of hazardous reactions:** Hazardous reactions not anticipated.  
**Conditions to avoid:** Avoid prolonged storage at temperatures exceeding 180°F.  
Extreme temperatures of combustion or burning and contact with nitrites could result in the formation of nitrosamines which are potential carcinogens.  
**Incompatible materials:** Avoid contact with strong oxidizers and nitrates.  
**Hazardous decomposition Products:** Oxides of carbon and nitrogen.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure:**  
**Inhalation:** Not an expected route of entry.  
**Ingestion:** Not an expected route of entry.  
**Skin:** May produce skin irritation.  
**Eyes:** Not an expected route of entry.

**Symptoms related to the physical, chemical, and toxicological characteristics:**  
Upon prolonged contact, may cause temporary eye discomfort.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
Detailed below.

**Numerical measures of toxicity:**  
**Ingredient Information:**

Substance	Test Type (species)	Value
Potassium hydroxide	LD <sub>50</sub> Oral (Rat)	273 mg/kg
	LD <sub>50</sub> Dermal (Rabbit)	No data available
	LC <sub>50</sub> Inhalation (Rat)	No data available

**Product Acute Toxicity Estimates:**  
Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** This material may cause skin irritation.

- Serious eye damage/eye irritation:** Upon prolonged contact, may cause temporary eye discomfort.
- Respiratory sensitization:** No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).
- Skin sensitization:** No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).
- Germ cell mutagenicity:** No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).
- Carcinogenicity:** No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.
- Reproductive toxicity:** No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).
- Specific target organ toxicity-  
Single exposure:** No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).
- Specific target organ toxicity-  
Repeat exposure:** No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).
- Aspiration hazard:** No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).

**Further information:** No data available.

**SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Potassium hydroxide	LC <sub>50</sub>	Fish - <i>Gambusia affinis</i> (Mosquito fish)	85 mg/l (24h)
	LC <sub>50</sub>	Aquatic crustacea	No data available
	EC <sub>50</sub>	Algae	No data available

**Persistence and Degradability:** No data available

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other adverse effects:** No data available.

**SECTION 13: Disposal considerations**

**Disposal instructions:**

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

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 SDS 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.

**SECTION 14: Transport Information**

**DOT:** This material is not classified as dangerous under DOT regulations.

**IATA:** This material is not classified as dangerous under IATA regulations.

**IMDG:** This material is not classified as dangerous under IMDG regulations.

**SECTION 15: Regulatory Information**

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are listed, as required, on the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

Component	Reportable Quantity
Potassium Hydroxide	1000 lbs

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

- Acute Health Hazard:** Yes
- Chronic Health Hazard:** No
- Fire Hazard:** No
- Pressure Hazard:** No
- Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**  
None

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** No components are listed on Prop 65.

**Massachusetts Right to Know:** Potassium hydroxide is listed on the Massachusetts Right to Know List.

**Minnesota Hazardous Substance List:** None of the components are listed on the Minnesota Hazardous Substance List.

**New Jersey Right to Know:** Potassium hydroxide is listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** Potassium hydroxide is listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** D2B - Toxic Material

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: April 24, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.



SDS Manual

Paint



# SDS Manual

# Paint

- Aervoe All-Purpose Marking Paint-Aerosol 251
- Krylon Pro Professional Water-Based  
Fluorescent Marking Paint-Orange 260
- Rust-Oleum Pro LSPR 6-pk Mark Fluorescent-  
Orange 274
- Rust-Oleum IC LSPR 12-pk Alert Orange 279
- Rust-Oleum IC LSPR 12-pk Safety Red 286
- Rust-Oleum IC LSPR 12-pk White Marking Paint  
292
- Rust-Oleum IC LSPR 12-pk Fluorescent Green  
299
- Rust-Oleum IC LSPR 12-pk Caution Yellow 306
- Scotchkote Electrical Coating FD 313
- Uni-Weld Purple or Clear Primer 325





# Safety Data Sheet (SDS)

Date Prepared/Revised: 9/11/2014 Version no.: 01 Supersedes: (-)

## 1.) Identification of the Mixture and of the Company

Product identifier: **AerVOE All Purpose Marking Paint - Aerosol**

Product name:

Non-Fluorescent Colors			Fluorescent Colors		
1380 Black	1381 Red	1382 Yellow	1390 Red	1391 Green	1392 Orange
1383 Blue	1384 Green	1385 Orange	1393 Yellow	1394 Blue	1395 Red-Orange
1387 White			1399 Pink		

Relevant identified uses of the substance: This product is designed to adhere to most surfaces - paved or unpaved.

Uses advised against: . Do not apply additional product until the previous coat is dry. Do not apply if surface is wet. Do not store at temperatures below 32°F (0°C). Do not use on turf surfaces.

CAS No: **Not Applicable (mixture)**  
EC No: **Not Applicable (mixture)**  
Index No: **Not Applicable (mixture)**  
Manufacturer/Supplier: **AerVOE Industries Incorporated**  
Street address/P.O. Box: **1100 Mark Circle**  
Country ID/Postcode/Place: **Gardnerville, Nevada 89410**  
Telephone number: **001 (0) 1-775-782-0100**  
e-mail: **mailbox@aerVOE.com**  
National contact: **AerVOE Industries Incorporated**  
For Product Information: **001 (0) 1-800-227-0196**  
Emergency telephone number: **001 (0) 1-800-424-9300 (CHEMTREC – 24 hrs)**  
**English Language Service**

## 2. Hazards identification

### Classifications

Physical Hazards: **Aerosol - Category 1**  
**Flam. Gas. 1**  
**Press. Gas**  
**Flam. Liq. 2**

Health Hazards: **Car 1B**  
**Muta 1B**  
**Asp Tox. 1**  
**Eye Irrit. - 2**  
**Rep. 2**  
**Skin. Irr. 2**  
**STOT SE3**



# Safety Data Sheet (SDS)

Date Prepared/Revised: 9/11/2014 Version no.: 01 Supersedes: (-)

Environmental Hazards: Aquatic Chronic 2

## Labeling

Signal Word: Danger

Hazard Statements: H220 – Extremely flammable gas  
H222 – Extremely flammable aerosol  
H225 – Highly flammable liquid and vapour.  
H229 - Pressurized container: may burst if heated  
H304 – May be fatal if swallowed and enters airways.  
H315 – Causes skin irritation.  
H319 – Causes serious eye irritation.  
H336 – May cause drowsiness or dizziness.  
H340 – May cause genetic defects  
H350 – May cause cancer  
H361 – Suspected of damaging fertility or the unborn child .  
H373 – May cause damage to organs through prolonged or repeated exposure

Precautionary Statements: P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P103 - Read label before use  
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  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P262 - Do not get in eyes, on skin, or on clothing  
P264 - Wash ... thoroughly after handling  
P280 - Wear protective gloves/eye protection/face protection  
  
P303+P361+P353 - If on skin or hair, remove/takeoff immediately all contaminated clothing. Rinse skin with water/shower.  
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F  
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation

Symbols/Pictograms:





# Safety Data Sheet (SDS)

Date Prepared/Revised: 9/11/2014 Version no.: 01 Supersedes: (-)

## 3. Composition / Information on Ingredients

### Composition

Chemical	Synonyms	CAS Number	EINECS Number	Weight Percent	Hazard Category	H-Code
Hydrocarbon Propellant	LPG	68476-86-8	270-705-8	10-30%	Press. Gas Flam. Gas 1 Carc. 1B Muta. 1B	H220 H350 H340
Hexane	n-Hexane	110-54-3	203-777-6	5-10%	Flam. Liq. 2 Repr. 2 Asp. Tox. 1 STOT RE 2 * Skin Irrit. 2 STOT SE 3 Aquatic Chronic 2	H225 H361f *** H304 H373 ** H315 H336 H411
Aliphatic Petroleum Distillates	Solvent Naphtha	64742-89-8	265-192-2	5-10%	Carc. 1B Muta. 1B Asp. Tox. 1	H350 H340 H304
Aliphatic Petroleum Distillates	Solvent Naphtha	64742-88-7	265-191-7	1-5%	Press. Gas Flam. Gas 1 Carc. 1B Muta. 1B	H220 H350 H340
Aliphatic Petroleum Distillates	Solvent Naphtha	8032-32-4	232-453-7	1-5%	Flam. Liq. 2 Repr. 2 Asp. Tox. 1 STOT RE 2 * Skin Irrit. 2 STOT SE 3 Aquatic Chronic 2	H225 H361f *** H304 H373 ** H315 H336 H411
Non-fluorescent colors also contain:						
Acetone	Propanone	67-64-1	200-662-2	1-5%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225, H319, H336

### Other Product Information



# Safety Data Sheet (SDS)

Date Prepared/Revised: 9/11/2014 Version no.: 01 Supersedes: (-)

Chemical Identity: Mixture

## 4.) First Aid Measures

<b>General Advice:</b>	If symptoms persist, always call a doctor.
<b>Inhalation First Aid:</b>	Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.
<b>Skin Contact First Aid:</b>	Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.
<b>Eye Contact First Aid:</b>	If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. Get medical attention immediately.
<b>Ingestion First Aid:</b>	If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Most Important Symptoms/Effects:</b>	Exposure may cause slight irritation to the skin, eyes, and respiratory tract. Excessive exposure may cause central nervous system effects.

## 5. Fire Fighting Measures

Flammable Properties:	Aerosol
Auto Ignition Temperature:	Not Available
Suitable extinguishing media:	Carbon dioxide, dry chemical, water spray.
Unsuitable extinguishing media:	None known
Special hazards arising from the substance or mixture:	None known
Hazardous combustion products:	Carbon dioxide, Carbon monoxide
Fire & Explosion Hazards:	Closed Containers may rupture due to the buildup of pressure from extreme temperatures.
Precautions for fire-fighters:	Use water spray to cool containers exposed to heat or fire to prevent pressure build up. In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

### PERSONAL PRECAUTIONARY MEASURES:

- 1) Follow personal protective equipment recommendations found in section 8.
- 2) Maintain adequate ventilation.



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## SPILL CLEAN-UP PROCEDURES:

- 1.) Evacuate unprotected personnel from the area.
- 2.) Remove sources of ignition if safe to do so.
- 3.) Pickup spilled materials using non-sparking tools and place in an appropriate container for disposal.
- 4.) Contain spill to prevent material from entering sewage or ground water systems.
- 5.) Always dispose of waste materials in accordance with all EU, National and Local Regulations.

## 7. Handling and Storage

### Handling:

Flammable Aerosol, use in a well ventilated area.  
Do not use near sources of ignition.  
Do not to eat, drink and smoke while working with this material.  
Wash hands after use.

### Conditions for safe storage, including any incompatibilities:

Store out of direct sunlight.  
Storage Temperature: 32° to 120°F (0° to 49°C).  
No known incompatibilities.

## 8. Exposure Controls / Personal Protection

### Appropriate engineering controls:

Ensure adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.

### Personal Protection:

Eye & face protection devices such as safety glasses, safety goggles or face shield are recommended.

### Skin protection

Wear the appropriate protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### Respiratory protection:

Use only in an adequately ventilated area. For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA).

Hazardous Ingredient	CAS Number	ACGIH TLV (TWA)	ACGIH TLV (STEL)	OSHA PEL (TWA)	OSHA PEL (STEL)
Aliphatic Petroleum Distillates	64742-88-7	N/AV	N/AV	N/AV	N/AV



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Aliphatic Petroleum Distillates	64742-89-8	N/AV	N/AV	N/AV	N/AV
Hydrocarbon Propellant	68476-86-8	N/AV	N/AV	N/AV	N/AV
Aliphatic Petroleum Distillates	8032-32-4	200ppm	300ppm	200ppm	N/AV
Hexane	110-54-3	50ppm	N/AV	500ppm	N/AV
Acetone	67-64-1	500ppm	750ppm	1000ppm	N/AV

\*Values are based on the 2014 Guide to Occupational Exposure Values by ACGIH

## 9. Information on Basic Physical and Chemical Properties

Appearance: Color varies by product.	Odor: Hydrocarbon Odor
Odor Threshold: N/AV	pH: Not Applicable (solvent Base)
Melting Point: N/AV	Freezing Point: N/AV
Initial Boiling Point: N/AV	Boiling Point Range: N/AV
Flash Point: <0° F (-18° C)	Evaporation Rate: Faster than n-Butyl Acetate
Flammability Solid/Gas: Flammable gas	LEL: 0.9% UEL: 13%
Vapor Pressure: N/AV	Vapor Density: Heavier Than Air
Relative Density: N/AV	Solubility: Negligible
Partition Coefficient: n-octanol/ water: N/AV	Auto-ignition Temperature: N/AV
Decomposition Temperature: N/AV	Viscosity: N/AV
Explosive Properties: N/AV	Oxidizing Properties: N/AV

## 10. Stability & Reactivity

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions  
Chemical stability: Stable under normal conditions  
Conditions to avoid: Heat and ignition sources  
Incompatible materials: Strong Oxidizing Agents  
Hazardous decomposition products: Will not occur

## 11. Toxicological Information

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart and blood

Routes of exposure: Eyes, skin, ingestion, and/or inhalation

Acute toxicological data:

(Acetone) Acute oral LD50: 5800mg/kg(rat)  
(Acetone) LC50: 21000 ppm / 8 hr (rat)  
(Hexane) LD50: 2870 mg/kg (Rat-Oral)



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Eye irritation data: N/AV

Skin irritation/sensitization/absorption data: N/AV  
Reproductive toxicity data: N/AV

Mutagenicity data: Muta 1B

Symptoms associated with physical contact: N/AV

Acute/chronic effects from short/long term exposure: Irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Not expected to be a skin sensitizer.

Known reportable carcinogens via the following agencies:

NTP: N/AV  
IARC: IARC3:Classification not possible from current data  
OSHA: TLV-A4

\* Petroleum distillates may contain chemical carcinogens in limited quantities (< 0.01%). These quantities are determined by the supplier/fraction/purity of the distillate during the manufacturing process. Chemicals that may be present within distillates are listed on California's prop 65 list such as ETHYLBENZENE, BENZENE, and TOLUENE.

## 12. Ecological Information

Ecotoxicity: **No Data Available**  
Persistence and degradability: **No Data Available**  
Bioaccumulative potential: **No Data Available**  
Mobility in soil: **No Data Available**  
Results of PBT and vPvB assessment: **No Data Available**  
Other adverse effects: **No Data Available**

## 13. Disposal Considerations

**Waste Disposal:** Dispose of material in accordance with EU, national and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

**Product / Packaging disposal:** Dispose of packaging in accordance with federal, state and local



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requirements, regulations and/or laws governing your location.

## 14. Transportation Information

### US DOT

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference 49 CFR 172.101

### IMDG

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference IMDG code part 3

### IATA:

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols, Flammable	2.1	Not Applicable	Not Applicable	Reference IATA Dangerous Goods Regulation

## 15. Regulatory Information

### Workplace classification:

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). The Occupational Safety and Health Administration's interpretation of the product's hazard to workers.

### SARA Title 3:

Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an immediate and delayed health, and flammability physical hazard. Superfund Amendment and Reauthorization Act (SARA) category. SARA requires reporting any spill of any hazardous substance.

**TSCA status:** All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.

**PROP 65 (CA):** WARNING: This product may contain chemicals know to the state of California to cause cancer, birth defects or other reproductive harm.

## 16. Other Information





# Safety Data Sheet (SDS)

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This SDS has been completed in accordance with GHS Rev04 (2011): U.S OSHA, CMA, ANSI, Canadian WHMIS standards, and European Directives.

Date of Preparation/Revision: 9/11/2014  
Supersedes: (-)

To the best of our knowledge, the information contained herein is believed to be accurate. However, the above data does not imply any guarantee or warranty of any kind, expressed or implied. The final determination of the suitability of any material is the sole responsibility of the user. All materials made present un-known hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards existing.

# SAFETY DATA SHEET

7320

## Section 1. Identification

**Product name** : KRYLON® PRO PROFESSIONAL Water-Based Fluorescent Marking Paint  
Orange

**Product code** : 7320

**Other means of identification** : Not available.

**Product type** : Aerosol.

**Relevant identified uses of the substance or mixture and uses advised against**

Not applicable.

**Manufacturer** : Krylon Products Group  
Cleveland, OH 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 457-9566

**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  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
TOXIC TO REPRODUCTION (Unborn child) - 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 2  
ASPIRATION HAZARD - Category 1  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 30.9%

### 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.  
Suspected of damaging the unborn child.  
May be fatal if swallowed and enters airways.  
May cause respiratory irritation.  
May cause drowsiness and dizziness.  
May cause 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. Wear eye or face protection. Wear protective clothing. 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 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: 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**

DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations. 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 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

## Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Toluene	≥10 - <21	108-88-3
Propane	≥10 - <25	74-98-6
Lt. Aliphatic Hydrocarbon Solvent	≥5 - <10	64742-89-8
Butane	≥5 - <10	106-97-8
Light Aliphatic Hydrocarbon Solvent	≥5 - <10	68410-97-9
Light Aliphatic Hydrocarbon Solvent	≥5 - <10	64742-49-0
Heptane	≥1 - <3	142-82-5

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 and 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

## Section 4. First aid measures

- 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:  
irritation  
redness  
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. 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. Runoff to sewer may create fire or explosion hazard.

**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.

## Section 5. Fire-fighting measures

**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 specialised 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 compatibilities** : 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Toluene	<p><b>OSHA PEL Z2 (United States, 2/2013).</b>                      TWA: 200 ppm 8 hours.                      CEIL: 300 ppm                      AMP: 500 ppm 10 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b>                      TWA: 100 ppm 10 hours.                      TWA: 375 mg/m<sup>3</sup> 10 hours.                      STEL: 150 ppm 15 minutes.                      STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>ACGIH TLV (United States, 3/2015).</b>                      TWA: 20 ppm 8 hours.</p>
Propane	<p><b>NIOSH REL (United States, 10/2013).</b>                      TWA: 1000 ppm 10 hours.                      TWA: 1800 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 2/2013).</b>                      TWA: 1000 ppm 8 hours.                      TWA: 1800 mg/m<sup>3</sup> 8 hours.</p>
Light Aliphatic Hydrocarbon Solvent Butane	<p>None.</p> <p><b>NIOSH REL (United States, 10/2013).</b>                      TWA: 800 ppm 10 hours.                      TWA: 1900 mg/m<sup>3</sup> 10 hours.</p> <p><b>ACGIH TLV (United States, 3/2015).</b>                      STEL: 1000 ppm 15 minutes.</p>
Light Aliphatic Hydrocarbon Solvent Light Aliphatic Hydrocarbon Solvent Heptane	<p>None.</p> <p><b>ACGIH TLV (United States, 3/2015).</b>                      TWA: 400 ppm 8 hours.                      TWA: 1640 mg/m<sup>3</sup> 8 hours.                      STEL: 500 ppm 15 minutes.                      STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b>                      TWA: 85 ppm 10 hours.                      TWA: 350 mg/m<sup>3</sup> 10 hours.                      CEIL: 440 ppm 15 minutes.                      CEIL: 1800 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b>                      TWA: 500 ppm 8 hours.                      TWA: 2000 mg/m<sup>3</sup> 8 hours.</p>

**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.

## Section 8. Exposure controls/personal protection

### 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. 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** : Use a properly fitted, air-purifying or air-fed 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.
- 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** : 2 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%  
Upper: 9.5%
- Vapor pressure** : 13.5 kPa (101.325 mm Hg) [at 20°C]
- Vapor density** : 1 [Air = 1]
- Relative density** : 0.79
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.



## Section 9. Physical and chemical properties

Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): <0.205 cm <sup>2</sup> /s (<20.5 cSt) Kinematic (40°C (104°F)): <0.205 cm <sup>2</sup> /s (<20.5 cSt)
Molecular weight	: Not applicable.
<b>Aerosol product</b>	
Type of aerosol	: Spray
Heat of combustion	: 19.37 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
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Butane Light Aliphatic Hydrocarbon Solvent	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	5.17 g/kg	-
Heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m <sup>3</sup>	4 hours

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-

## Section 11. Toxicological information

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Lt. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Light Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Light Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Heptane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Lt. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Light Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Light Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
heptane	Category 2	Not determined	Not determined

### Aspiration hazard

## Section 11. Toxicological information

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Heptane	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 and 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  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
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.

**Potential chronic health effects**

Not available.

General : 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 : 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	2927.6 mg/kg

**Section 12. Ecological information**

**Toxicity**

Product/ingredient name	Result	Species	Exposure
Toluene	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, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Lt. Aliphatic Hydrocarbon Solvent Heptane	Acute LC50 375000 µg/l Fresh water	Fish - Oreochromis mossambicus	96 hours

**Persistence and degradability**

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily

**Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Toluene	-	90	low
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
Light Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
Light Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
Heptane	-	552	high

**Mobility in soil**

## Section 12. Ecological information






Soil/water partition coefficient (K<sub>oc</sub>) : 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.
Additional information	<u>Special provisions</u> LIMITED QUANTITY  <u>ERG No.</u> 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).  <u>Special provisions</u> LIMITED QUANTITY  <u>ERG No.</u> 126	<u>Special provisions</u> (ERG#126)  <u>ERG No.</u> 126	<u>Special provisions</u> LIMITED QUANTITY	<u>Emergency schedules (EmS)</u> LIMITED QUANTITY, F-D, S-U

## 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 73/78 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	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
Flam. Aerosol 1, H222	On basis of test data
Press. Gas Comp. Gas, H280	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2A, H319	Calculation method
Repr. 2, H361 (Unborn child)	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 2, H373	Calculation method
Asp. Tox. 1, H304	Calculation method

### History

**Date of printing** : 12/18/2015  
**Date of issue/Date of revision** : 12/18/2015

## Section 16. Other information

Date of previous issue : 11/5/2015  
Version : 1.03  
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 73/78 = 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.

# Material Safety Data Sheet

24 Hour Assistance:

1-847-367-7700

Rust-Oleum Corp.

www.rustoleum.com



## 1. Identification

**Product Name:** PRO LSPR 6PK MARK FLUORESCENT ORANGE  
**Revision Date:** 5/21/2014  
**Product Number:** 2554838  
**Product Use/Class:** Marking Paint/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  
**Prepared by:** Regulatory Department

## 2. Hazard Identification

**EMERGENCY OVERVIEW:** Harmful if swallowed. Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Contents Under Pressure. Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea. May cause eye, skin, or respiratory tract irritation. KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Causes eye irritation. Use ventilation necessary to keep exposures below recommended exposure limits, if any. Vapor Harmful. Causes Eye, Skin, Nose, and Throat Irritation.

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

**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. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

## 3. Composition/Information On Ingredients

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Liquefied Petroleum Gas	68476-86-8	30.0	N.E.	N.E.	N.E.	N.E.
Aliphatic Hydrocarbon	64742-89-8	20.0	100 ppm	N.E.	100 ppm	N.E.
Limestone	1317-65-3	20.0	N.E.	N.E.	15 mg/m <sup>3</sup> [Total Dust]	N.E.
Talc	14807-96-6	10.0	2 mg/m <sup>3</sup>	N.E.	0.1 mg/m <sup>3</sup> [Respirable]	N.E.
Acetone	67-64-1	10.0	500 ppm	750 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	5.0	150 ppm	200 ppm	150 ppm	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	200 mg/m <sup>3</sup>	N.E.	N.E.	N.E.



Naphtha, Petroleum, Hydrotreated Light	64742-49-0	5.0	200 mg/m3	N.E.	N.E.	N.E.
Stoddard Solvents	8052-41-3	5.0	100 ppm	N.E.	500 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	125 ppm	100 ppm	N.E.

#### 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:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. 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.

**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

Flash Point, °F -156 (Calculated)

Extinguishing Media: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLASH POINT IS LESS THAN 20 ° F. - EXTREMELY FLAMMABLE LIQUID AND VAPOR! 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. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. 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. 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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 in a well-ventilated area. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class I flammable liquids. Contents under pressure. Do not expose to heat or store above 120 ° F. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

#### 8. Exposure Controls/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. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

**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 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. 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

Vapor Density	Heavier than Air	Odor:	Solvent Like
Appearance:	Aerosolized Mist	Evaporation Rate:	Faster than Ether
Solubility in Water:	Slight	Freeze Point:	N.D.
Specific Gravity:	0.871	pH:	N.A.
Physical State:	Liquid		

(See section 16 for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120 ° F. Avoid all possible sources of ignition. 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

<u>Chemical Name</u>	<u>LD50</u>	<u>LC50</u>
Liquefied Petroleum Gas	N.E.	N.E.
Aliphatic Hydrocarbon	>5000 mg/kg (Rat, Oral)	N.E.
Limestone	>5000 mg/kg (Rat, Oral)	N.E.
Talc	N.E.	TCLo: 11 mg/m <sup>3</sup> (Inhalation)
Acetone	5800 mg/kg (Rat)	50100 mg/m <sup>3</sup> (Rat, 8Hr)
n-Butyl Acetate	13100 mg/kg (Rat, Oral)	2000 ppm (Rat, Inhalation, 4Hr)
Hydrotreated Light Distillate	>3160 mg/kg (Skin)	N.E.
Naphtha, Petroleum, Hydrotreated Light	N.E.	N.E.
Stoddard Solvents	>5000 mg/kg (Rat, Oral)	N.E.
Ethylbenzene	3500 mg/kg (Rat, Oral)	N.E.

## 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.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	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:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

##### 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>
Xylene	1330-20-7
Ethylbenzene	100-41-4

##### 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.

#### International Regulations:

##### CANADIAN WHMIS:

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

Canadian WHMIS Class: AB5 D2A

**16. Other Information****HMIS Ratings:**

Health: 2\*    Flammability: 4    Physical Hazard: 0    Personal Protection: X

**NFPA Ratings:**

Health: 2    Flammability: 4    Instability: 0

**VOLATILE ORGANIC COMPOUNDS, g/L:** 522

**REASON FOR REVISION:** Regulatory Update

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.



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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
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	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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.

### 3. Composition / Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Acetone	67-64-1	28	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	15	GHS04	H280
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	13	GHS08	H304

n-Butane	106-97-8	7.1	GHS04	H280
Titanium Dioxide	13463-67-7	5.2	Not Available	Not Available
n-Butyl Acetate	123-86-4	4.8	GHS02-GHS07	H226-336
Xylenes (o-, m-, p- isomers)	1330-20-7	4.1	GHS02-GHS07	H226-315-319-332
Hydrous Magnesium Silicate	14807-96-6	3.5	Not Available	Not Available
Ethylbenzene	100-41-4	1.0	GHS02-GHS07- GHS08	H225-304-332-351-373

#### 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:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. 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.

**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, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! 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. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

#### 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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 in a well-ventilated area. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

**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
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Titanium Dioxide	13463-67-7	10.0	10 mg/m3	N.E.	15 mg/m3	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	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. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

**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 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. 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.

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.
Relative Density:	0.827	pH:	N.A.
Freeze Point, °C:	ND	Viscosity:	N.D.
Solubility in Water:	Slight	Partition Coefficient, n-octanol/ water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	0.9 - 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.

**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:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

**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. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** 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 central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.E. - Not Established

## 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. Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 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 Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	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, 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
Ethylbenzene	100-41-4

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

**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 0.84

SDS REVISION DATE: 8/17/2018

**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



## 1. Identification

**Product Name:** IC LSPR 12PK SAFETY RED MARKING      **Revision Date:** 3/20/2019  
**Product Identifier:** 203029      **Supersedes Date:** 8/7/2018  
**Recommended Use:** Marking Paint/Aerosols  
**Supplier:** Rust-Oleum Corporation      **Manufacturer:** Rust-Oleum Corporation  
 11 Hawthorn Parkway      11 Hawthorn Parkway  
 Vernon Hills, IL 60061      Vernon Hills, IL 60061  
 USA      USA  
  
 Rust-Oleum Canada (ROCA)  
 200 Confederation Parkway  
 Concord, ON L4K 4T8  
 Canada  
 Emergency Phone: 800-387-3625  
**Preparer:** Regulatory Department  
**Emergency Telephone:** 24 Hour Hotline: 847-367-7700

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

35% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Eye Irritation, category 2A	H319	Causes serious eye irritation.

### GHS LABEL PRECAUTIONARY STATEMENTS

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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
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	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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.

### 3. Composition / Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Acetone	67-64-1	28	GHS02-GHS07	H225-319-332-336
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15	GHS08	H304
Propane	74-98-6	14	GHS04	H280
n-Butane	106-97-8	6.4	GHS04	H280
Xylenes (o-, m-, p- isomers)	1330-20-7	4.2	GHS02-GHS07	H226-315-319-332
Hydrous Magnesium Silicate	14807-96-6	3.7	Not Available	Not Available
n-Butyl Acetate	123-86-4	3.2	GHS02-GHS07	H226-336
Titanium Dioxide	13463-67-7	2.5	Not Available	Not Available
Ethylbenzene	100-41-4	1.0	GHS02-GHS07- GHS08	H225-304-332-351-373
Octane	111-65-9	0.7	GHS02-GHS07- GHS08	H225-304-315-336

### 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:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. 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. No unusual fire or explosion hazards noted. Keep containers tightly closed.

**SPECIAL FIREFIGHTING PROCEDURES:** Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

## 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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. 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:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

**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
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	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	5.0	100 ppm	150 ppm	100 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Titanium Dioxide	13463-67-7	5.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Octane	111-65-9	1.0	300 ppm	N.E.	500 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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:	Aerosolized Mist	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Relative Density:	0.838	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%:	0.9 - 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.

**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 cause skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** 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 central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 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
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
111-65-9	Octane	N.E.	N.E.	>23.36 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

## 13. Disposal Information

DISPOSAL INFORMATION: Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 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, 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
Ethylbenzene	100-41-4

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

### U.S. State Regulations:

#### California Proposition 65:

WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://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 0.84

SDS REVISION DATE: 3/20/2019

REASON FOR REVISION: Product Composition Changed  
Substance and/or Product Properties Changed in Section(s):  
14 - Transport Information

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



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK WHITE MARKING	<b>Revision Date:</b>	8/7/2018
<b>Product Identifier:</b>	203030	<b>Supercedes Date:</b>	7/6/2018
<b>Recommended Use:</b>	Marking Paint/Aerosol		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

43% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Eye Irritation, category 2

H319 Causes serious eye irritation.

**GHS LABEL PRECAUTIONARY STATEMENTS**

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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
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	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
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.

**3. Composition / Information On Ingredients****HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Acetone	67-64-1	27	GHS02-GHS07	H225-319-332-336

Propane	74-98-6	14	GHS04	H280
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	12	GHS08	H304
Titanium Dioxide	13463-67-7	10	Not Available	Not Available
n-Butane	106-97-8	6.4	GHS04	H280
Xylenes (o-, m-, p- isomers)	1330-20-7	4.3	GHS02-GHS07	H226-315-319-332
Hydrous Magnesium Silicate	14807-96-6	3.4	Not Available	Not Available
Dimethyl Carbonate	616-38-6	3.3	GHS02	H225
n-Butyl Acetate	123-86-4	2.5	GHS02-GHS07	H226-336
Kaolin Clay	1332-58-7	1.2	Not Available	Not Available
Ethylbenzene	100-41-4	1.0	GHS02-GHS07- GHS08	H225-304-332-351-373

#### 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, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. 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. No unusual fire or explosion hazards noted. Keep containers tightly closed.

**SPECIAL FIREFIGHTING PROCEDURES:** Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

#### 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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. 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:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

**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
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15.0	N.E.	N.E.	N.E.	N.E.
Titanium Dioxide	13463-67-7	15.0	10 mg/m3	N.E.	15 mg/m3	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	5.0	100 ppm	150 ppm	100 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
Dimethyl Carbonate	616-38-6	5.0	N.E.	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Kaolin Clay	1332-58-7	5.0	2 mg/m3	N.E.	15 mg/m3	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.873	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	ND	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n- octanol/water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	0.9 - 13.0
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	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.

**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:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May cause skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** 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 central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
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
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
1332-58-7	Kaolin Clay	5500 mg/kg	>5000 mg/kg Rat	25
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 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 Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	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, 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
Ethylbenzene	100-41-4

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

**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 0.81

SDS REVISION DATE: 8/7/2018

REASON FOR REVISION: Substance Regulatory CAS Number Changed  
Substance Hazardous Flag Changed  
Substance Hazard Threshold % Changed  
Substance and/or Product Properties Changed in Section(s):  
15 - Regulatory Information

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



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK FLUOR GREEN MARKING	<b>Revision Date:</b>	8/7/2018
<b>Product Identifier:</b>	203023	<b>Supercedes Date:</b>	6/28/2018
<b>Recommended Use:</b>	Marking Paint/Aerosol		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

48% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Skin Sensitizer, category 1	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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	For specific treatment see label

**GHS SDS PRECAUTIONARY STATEMENTS**

P363 Wash contaminated clothing before reuse.

<b>3. Composition / Information On Ingredients</b>
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**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	19	GHS08	H304
Propane	74-98-6	17	GHS04	H280
Hydrous Magnesium Silicate	14807-96-6	8.7	Not Available	Not Available
n-Butane	106-97-8	8.0	GHS04	H280
Acetone	67-64-1	7.3	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	3.6	GHS02-GHS07	H226-336

Hydrotreated Light Distillate	64742-47-8	3.0	GHS08	H304
Xylenes (o-, m-, p- isomers)	1330-20-7	1.5	GHS02-GHS07	H226-315-319-332
Ethylbenzene	100-41-4	0.4	GHS02-GHS07- GHS08	H225-304-332-351-373
Stoddard Solvent	8052-41-3	0.2	GHS08	H304-372
Methyl ethyl ketoxime	96-29-7	0.1	GHS05-GHS06- GHS08	H302-312-317-318-331-351

#### 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:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. 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.

**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:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! 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. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

#### 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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 in a well-ventilated area. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

**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
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	20.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	10.0	2 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Acetone	67-64-1	10.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Methyl ethyl ketoxime	96-29-7	1.0	10 ppm	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. Use explosion-proof ventilation equipment. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

**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 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. 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.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.871	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n- octanol/water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	0.9 - 13.0
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	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.

**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:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

**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. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** 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). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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.

**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
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
96-29-7	Methyl ethyl ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.E. - Not Established

## 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. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation. Do not incinerate closed containers.

## 14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	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, 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

## 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 0.67

SDS REVISION DATE: 8/7/2018

REASON FOR REVISION: Revision Statement(s) Changed

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



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK CAUTION YELLOW MARK	<b>Revision Date:</b>	8/7/2018
<b>Product Identifier:</b>	203024	<b>Supersedes Date:</b>	7/6/2018
<b>Recommended Use:</b>	Marking Paint/Aerosol		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

35% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Eye Irritation, category 2	H319	Causes serious eye irritation.



**GHS LABEL PRECAUTIONARY STATEMENTS**

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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
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	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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.

**3. Composition / Information On Ingredients****HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Acetone	67-64-1	28	GHS02-GHS07	H225-319-332-336
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	14	GHS08	H304

Propane	74-98-6	14	GHS04	H280
n-Butane	106-97-8	6.4	GHS04	H280
n-Butyl Acetate	123-86-4	4.8	GHS02-GHS07	H226-336
Xylenes (o-, m-, p- isomers)	1330-20-7	4.2	GHS02-GHS07	H226-315-319-332
Titanium Dioxide	13463-67-7	3.8	Not Available	Not Available
Hydrous Magnesium Silicate	14807-96-6	3.8	Not Available	Not Available
Ethylbenzene	100-41-4	1.0	GHS02-GHS07- GHS08	H225-304-332-351-373
Ethylene Glycol Monobutyl Ether	111-76-2	0.1	GHS07	H302-312-315-319-332

#### 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:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. 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.

**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:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! 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. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. Closed containers may explode when exposed to extreme heat due to buildup of steam. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

#### 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. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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 in a well-ventilated area. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Contents under pressure. Do not expose to heat or store above 120 ° F. 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. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

**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
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Titanium Dioxide	13463-67-7	5.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Ethylene Glycol Monobutyl Ether	111-76-2	1.0	20 ppm	N.E.	50 ppm	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. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits.

**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 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. 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.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.838	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	ND	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n- octanol/water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	0.9 - 13.0
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	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.

**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:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. May cause skin irritation. Allergic reactions are possible.

**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. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Aspiration hazard if swallowed; can enter lungs and cause damage. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** 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 central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. 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:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
111-76-2	Ethylene Glycol Monobutyl Ether	470 mg/kg Rat	1,060 mg/kg Rabbit	11 mg/L

N.E. - Not Established

## 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. Do not incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 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 Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	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, 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
Ethylbenzene	100-41-4
Ethylene Glycol Monobutyl Ether	111-76-2

#### 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Castor oil, sulfated, sodium salt	68187-76-8

**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 0.84

SDS REVISION DATE: 8/7/2018

REASON FOR REVISION: Substance Regulatory CAS Number Changed  
Substance Hazardous Flag Changed  
Substance Hazard Threshold % Changed  
Substance and/or Product Properties Changed in Section(s):  
15 - Regulatory Information

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.

Document Group: 30-0188-0  
Issue Date: 01/21/16

Version Number: 3.01  
Supersedes Date: 07/08/14

## SECTION 1: Identification

**1.1. Product identifier**  
Scotchkote™ Electrical Coating FD

**Product Identification Numbers**  
78-8141-5273-8, 80-6116-0413-5, 80-6116-1578-4

### 1.2. Recommended use and restrictions on use

#### Recommended use

Electrical, Moisture proofing for wire connections.

### 1.3. Supplier's details

**MANUFACTURER:** 3M  
**DIVISION:** Electrical Markers Division  
**ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA  
**Telephone:** 1-888-3MHELPS (1-888-364-3577)

**1.4. Emergency telephone number**  
1-800-364-3577 or (651) 737-6501 (24 hours)

## SECTION 2: Hazard identification

### 2.1. Hazard classification

Flammable Liquid: Category 2.  
Serious Eye Damage/Irritation: Category 2A.  
Reproductive Toxicity: Category 2.  
Specific Target Organ Toxicity (central nervous system): Category 3.

### 2.2. Label elements

**Signal word**  
Danger

### Symbols

Flame | Exclamation mark | Health Hazard |

**Pictograms**

May cause drowsiness or dizziness.  
Suspected of damaging fertility or the unborn child.

**Precautionary Statements**

**General:**  
Keep out of reach of children.

**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.  
Ground/bond container and receiving equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Keep container tightly closed.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves and eye/face protection.  
Wash thoroughly after handling.

**Response:**

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.  
**IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/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 advice/attention.  
If exposed or concerned: Get medical advice/attention.  
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**Storage:**

Store in a well-ventilated place. Keep cool.  
Keep container tightly closed.  
Store locked up.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

None.

6% of the mixture consists of ingredients of unknown acute dermal toxicity.

**SECTION 3: Composition/Information on ingredients**



\* 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. If you feel unwell, get medical attention.

#### **Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

#### **Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### **If Swallowed:**

Rinse mouth. If you feel unwell, get 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

Not applicable.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

### 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

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Nitrogen	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

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

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

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing 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 release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. 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

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable Fraction):2 mg/m <sup>3</sup> ;STEL(respirable fraction):10 mg/m <sup>3</sup>	
Zinc Oxide	1314-13-2	OSHA	TWA(as fume):5 mg/m <sup>3</sup> ;TWA(as total dust):15	

## 8.2. Exposure controls

### 8.2.1. Engineering controls

Provide appropriate local exhaust ventilation on open containers. 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. Use explosion-proof ventilation 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:

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 gloves/protective clothing.

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

#### 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 air-purifying respirator suitable for organic vapors

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:

Viscous

Odor, Color, Grade:

Dark brown liquid; sharp solvent odor.

Odor threshold

No Data Available

pH

Not Applicable

Melting point

Not Applicable

Boiling Point

>=56 °C [Details: Acetone]

Flash Point

-4 °F [Test Method: Closed Cup]

Evaporation rate

1.9 [Ref/Std: ETHER=1]

Autoignition temperature	465 °C
Decomposition temperature	<i>No Data Available</i>
Viscosity	325 centipoise [ @ 73.4 °F ]
Average particle size	<i>No Data Available</i>
Bulk density	<i>No Data Available</i>
Hazardous Air Pollutants	0 % weight [ <i>Test Method</i> : Calculated]
Molecular weight	<i>No Data Available</i>
Volatile Organic Compounds	0 g/l [ <i>Test Method</i> : calculated SCAQMD rule 443.1 ] [ <i>Details</i> : low solids less exempts]
Percent volatile	40 - 75 % weight
Softening point	<i>No Data Available</i>
VOC Less H2O & Exempt Solvents	0 g/l [ <i>Test Method</i> : calculated SCAQMD rule 443.1 ]
VOC Less H2O & Exempt Solvents	0 lb/gal [ <i>Test Method</i> : calculated SCAQMD rule 443.1 ]
VOC Less H2O & Exempt Solvents	0 % [ <i>Test Method</i> : calculated SCAQMD rule 443.1 ]
Solids Content	>=28 % weight

## 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

Strong oxidizing agents

### 10.6. Hazardous decomposition products

Substance  
None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

**Inhalation:**

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

May cause additional health effects (see below).

**Skin Contact:**

Prolonged or repeated exposure may cause:

Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

**Eye Contact:**

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion:**

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

May cause additional health effects (see below).

**Additional Health Effects:**

**Single exposure may cause 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.

**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**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	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Inhalation- Vapor (4 hr)		No data available; calculated ATE > 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation- Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg

### Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professional Judge	No significant irritation
Glycerol Esters of Rosin Acids	Rabbit	Minimal irritation
Salicylic Acid	Rabbit	No significant irritation
Zinc Oxide	Human and animal	No significant irritation

### Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Acrylonitrile-Butadiene Polymer	Professional Judge	No significant irritation
Glycerol Esters of Rosin Acids	Rabbit	Mild irritant
Salicylic Acid	Rabbit	Corrosive
Zinc Oxide	Rabbit	Mild irritant

### Skin Sensitization

Name	Species	Value
Glycerol Esters of Rosin Acids	Guinea pig	Not sensitizing
Phenol-Formaldehyde Polymer	Human	Some positive data exist, but the data are not sufficient for classification
Salicylic Acid	Mouse	Not sensitizing
Zinc Oxide	Guinea pig	Some positive data exist, but the data are not sufficient for classification

### Photosensitization

Name	Species	Value
Salicylic Acid	Mouse	Not sensitizing

### Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

### Germ Cell Mutagenicity

Name	Route	Value
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification

	Specified animal species
--	--------------------------

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Acetone	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5.2 mg/l	during organogenesis
Salicylic Acid	Ingestion	Toxic to development	Rat	NOAEL 75 mg/kg/day	during organogenesis
Zinc Oxide	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 125 mg/kg/day	prematuring & during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or	Some positive data exist, but the	Guinea	NOAEL 119	not available

Acetone	Ingestion	liver	classification	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are negative		Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	All data are negative		Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	All data are negative		Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin   bone, teeth, nails, and/or hair	All data are negative		Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Glycerol Esters of Rosin Acids	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		Rat	NOAEL 5,000 mg/kg/day	90 days
Glycerol Esters of Rosin Acids	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   blood   bone marrow   hematopoietic system   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system	All data are negative		Rat	NOAEL 5,000 mg/kg/day	90 days
Salicylic Acid	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		Rat	NOAEL 500 mg/kg/day	3 days
Zinc Oxide	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification		Rat	NOAEL 600 mg/kg/day	10 days
Zinc Oxide	Ingestion	endocrine system   hematopoietic system   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		Other	NOAEL 500 mg/kg/day	6 months

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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



Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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.

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

## **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 - 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 - 2

### **15.2. State Regulations**

Contact 3M for more information.

### **15.3. Chemical Inventories**

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain

## SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 3 Instability: 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.

<b>Document Group:</b>	30-0188-0	<b>Version Number:</b>	3.01
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# United Elchem Industries



Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED

## \*\*\* Section 1 - Product and Company Identification \*\*\*

MSDS #2402E

Part Numbers: Purple - 8766S, 8756S, 8746S, 8736S, 8724 Clear - 9366S, 9356S, 9346S, 9336S, 9324

### Manufacturer Information

United Elchem Industries  
c/o Oatey Co.  
4700 West 160th Street  
P.O. Box 35906  
Cleveland, OH 44135

Phone: 216-267-7100

For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1- 703-527-3887.

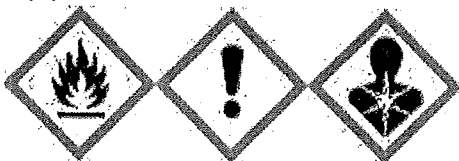
## \*\*\* Section 2 - Hazards Identification \*\*\*

### GHS Classification:

Flammable Liquids - Category 2  
Acute Toxicity Oral - Category 4  
Acute Toxicity Dermal - Category 4  
Acute Toxicity Inhalation - Category 4  
Eye Damage/Irritation - Category 2A  
Carcinogenicity - Category 2  
Specific Target Organ Toxicity Single Exposure - Category 3

### GHS LABEL ELEMENTS

#### Symbol(s)



#### Signal Word

Danger

#### Hazard Statements

Highly flammable liquid and vapor.  
Harmful if swallowed.  
Harmful in contact with skin.  
Harmful if inhaled.  
Causes serious eye irritation.  
Contains a chemical classified by the US EPA as a suspected possible carcinogen.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.

#### Precautionary Statements

##### Prevention

Keep away from heat/sparks/open flames and hot surfaces. - No smoking.  
Keep container tightly closed.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.

**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

Take precautionary measures against static discharge.  
Wear protective gloves/eye protection/face protection.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing fume/gas/mist/vapors.  
Use only outdoors or in a well-ventilated area.

**Response**

If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting.  
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 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.  
In case of fire: Use dry chemical, CO2, or foam to extinguish fire.

**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.

**\*\*\* Section 3 - Composition / Information on Ingredients \*\*\***

CAS #	Component	Percent
78-93-3	Methyl ethyl ketone	25-40
67-64-1	Acetone	25-40
108-94-1	Cyclohexanone	15-30
109-99-9	Tetrahydrofuran	15-30

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

**First Aid: Eyes**

If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.

**First Aid: Skin**

Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with hand cleaner or baby oil.

**First Aid: Ingestion**

DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

**First Aid: Inhalation**

If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

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

**General Fire Hazards**

See Section 9 for Flammability Properties.  
Highly flammable liquid and vapor. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

**Hazardous Combustion Products**

Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

**Extinguishing Media**

Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.

**Unsuitable Extinguishing Media**

None.

**Fire Fighting Equipment/Instructions**

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

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

**Recovery and Neutralization**

Stop leak if it can be done without risk.

**Materials and Methods for Clean-Up**

Remove all sources of ignition and ventilate area. Soak up spill with an inert absorbent such as sand, earth or other noncombusting material. Put absorbent material in covered, labeled metal containers.

**Emergency Measures**

Isolate area. Keep unnecessary personnel away.

**Personal Precautions and Protective Equipment**

Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high.

**Environmental Precautions**

Prevent liquid from entering watercourses, sewers and natural waterways.

**Prevention of Secondary Hazards**

None

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

**Handling Procedures**

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. "Empty" containers retain product residue and can be hazardous. Follow all SDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

### **Storage Procedures**

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

### **Incompatibilities**

Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

<b>* * * Section 8 - Exposure Controls / Personal Protection * * *</b>
--

### **Component Exposure Limits**

#### **Acetone (67-64-1)**

ACGIH: 500 ppm TWA  
750 ppm STEL  
OSHA: 1000 ppm TWA; 2400 mg/m<sup>3</sup> TWA  
NIOSH: 250 ppm TWA; 590 mg/m<sup>3</sup> TWA

#### **Methyl ethyl ketone (78-93-3)**

ACGIH: 200 ppm TWA  
300 ppm STEL  
OSHA: 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
NIOSH: 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL

#### **Cyclohexanone (108-94-1)**

ACGIH: 20 ppm TWA  
50 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route  
OSHA: 50 ppm TWA; 200 mg/m<sup>3</sup> TWA  
NIOSH: 25 ppm TWA; 100 mg/m<sup>3</sup> TWA  
Potential for dermal absorption

#### **Tetrahydrofuran (109-99-9)**

ACGIH: 50 ppm TWA  
100 ppm STEL  
Skin - potential significant contribution to overall exposure by the cutaneous route  
OSHA: 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
NIOSH: 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
250 ppm STEL; 735 mg/m<sup>3</sup> STEL

### **Engineering Measures**

Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.

### **Personal Protective Equipment: Respiratory**

For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED

### Personal Protective Equipment: Hands

Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

### Personal Protective Equipment: Eyes

Safety glasses with side shields or safety goggles.

### Personal Protective Equipment: Skin and Body

No additional protective equipment needed.

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

Appearance:	Purple or clear	Odor:	Ether-like
Physical State:	Liquid	pH:	NA
Vapor Pressure:	145 mmHg @ 20°C	Vapor Density:	2.5
Boiling Point:	151°F (66°C)	Melting Point:	NA
Solubility (H2O):	Negligible	Specific Gravity:	0.84 +/- 0.02 @ 20°C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0	VOC:	99.96%
Octanol/H2O Coeff.:	ND	Flash Point:	14-23°F (-10 to -5°C)
Flash Point Method:	CCCFP	Upper Flammability Limit (UFL):	11.8
Lower Flammability Limit (LFL):	1.8	Burning Rate:	ND
Auto Ignition:	ND		

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

### Chemical Stability

This is a stable material.

### Hazardous Reaction Potential

Will not occur.

### Conditions to Avoid

Avoid heat, sparks, flames and other sources of ignition.

### Incompatible Products

Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

### Hazardous Decomposition Products

Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Toxicity

#### Component Analysis - LD50/LC50

##### Acetone (67-64-1)

Oral LD50 Rat 5800 mg/kg

##### Methyl ethyl ketone (78-93-3)

Inhalation LC50 Mouse 32 g/m<sup>3</sup> 4 h; Oral LD50 Rat 2737 mg/kg; Dermal LD50 Rabbit 6480 mg/kg

##### Cyclohexanone (108-94-1)

## Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED

Inhalation LC50 Rat 10.7 mg/L 4 h; Inhalation LC50 Rat 8000 ppm 4 h; Oral LD50 Rat 800 mg/kg; Dermal LD50 Rabbit 948 mg/kg

### Tetrahydrofuran (109-99-9)

Inhalation LC50 Rat 53.9 mg/L 4 h; Inhalation LC50 Rat 180 mg/L 1 h; Oral LD50 Rat 1650 mg/kg

### Potential Health Effects: Skin Corrosion Property/Stimulativeness

May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.

### Potential Health Effects: Eye Critical Damage/ Stimulativeness

Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.

### Potential Health Effects: Ingestion

Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

### Potential Health Effects: Inhalation

Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

### Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

### Generative Cell Mutagenicity

Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

### Carcinogenicity

#### A: General Product Information

In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

#### B: Component Carcinogenicity

##### Acetone (67-64-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

##### Cyclohexanone (108-94-1)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans  
IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

##### Tetrahydrofuran (109-99-9)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans



**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

**Reproductive Toxicity**

Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

**Specified Target Organ General Toxicity: Single Exposure**

May cause respiratory irritation. Inhalation of high concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

**Specified Target Organ General Toxicity: Repeated Exposure**

This product is not reported to have any specific target organ toxicity repeat exposure effects.

**Aspiration Respiratory Organs Hazard**

Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

**\*\*\* Section 12 - Ecological Information \*\*\***

**Ecotoxicity**

**A: General Product Information**

This product is not expected to be toxic to aquatic organisms.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

**Acetone (67-64-1)**

Test & Species	Conditions
96 Hr LC50 Oncorhynchus mykiss	4.74 - 6.33 mL/L
96 Hr LC50 Pimephales promelas	6210 - 8120 mg/L [static]
96 Hr LC50 Lepomis macrochirus	8300 mg/L
48 Hr EC50 Daphnia magna	10294 - 17704 mg/L [Static]
48 Hr EC50 Daphnia magna	12600 - 12700 mg/L

**Methyl ethyl ketone (78-93-3)**

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	3130-3320 mg/L [flow-through]
48 Hr EC50 Daphnia magna	>520 mg/L
48 Hr EC50 Daphnia magna	5091 mg/L
48 Hr EC50 Daphnia magna	4025 - 6440 mg/L [Static]

**Cyclohexanone (108-94-1)**

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	481-578 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	8.9 mg/L
96 Hr EC50 Chlorella vulgaris	20 mg/L
24 Hr EC50 Daphnia magna	800 mg/L

**Tetrahydrofuran (109-99-9)**

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	1970-2360 mg/L [flow-through]

**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

96 Hr LC50 Pimephales promelas	2700-3600 mg/L [static]
24 Hr EC50 Daphnia magna	5930 mg/L

**Persistence/Degradability**

No information available for the product.

**Bioaccumulation**

No information available for the product.

**Mobility in Soil**

No information available for the product.

**\*\*\* Section 13 - Disposal Considerations \*\*\***

**Waste Disposal Instructions**

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

**Disposal of Contaminated Containers or Packaging**

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

**\*\*\* Section 14 - Transportation Information \*\*\***

**DOT Information**

**For Greater than 1 liter (0.3 gal):**

**Shipping Name:** Flammable Liquid, n.o.s (Methyl Ethyl Ketone, Acetone)

**UN #: 1993 Hazard Class: 3 Packing Group: II**

**Required Label(s):** Flammable Liquid

**For Less than 1 liter (0.3 gal):**

**Shipping Name:** Consumer Commodity, ORM-D

**IMDG Information**

**For Greater than 1 liter (0.3 gal):**

**Shipping Name:** Flammable Liquid, n.o.s (Methyl Ethyl Ketone, Acetone)

**UN #: 1993 Hazard Class: 3 Packing Group: II**

**Required Label(s):** Flammable Liquid

**For Less than 1 liter (0.3 gal):**

**Shipping Name:** Flammable Liquid, n.o.s (Limited Quantity)

**UN #: 1993 Hazard Class: 3 Packing Group: II**

**Required Label(s):** None (Limited Quantities are expected from labeling)

**\*\*\* Section 15 - Regulatory Information \*\*\***

**Regulatory Information**

**US Federal Regulations**

## Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED

### Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

#### Acetone (67-64-1)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

#### Methyl ethyl ketone (78-93-3)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

#### Cyclohexanone (108-94-1)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

#### Tetrahydrofuran (109-99-9)

CERCLA: 1000 lb final RQ; 454 kg final RQ

### State Regulations

#### Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes	No
Methyl ethyl ketone	78-93-3	Yes	Yes	Yes	Yes	Yes	No
Cyclohexanone	108-94-1	Yes	Yes	Yes	Yes	Yes	No
Tetrahydrofuran	109-99-9	Yes	Yes	Yes	Yes	Yes	No

#### Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Acetone	67-64-1	1 %
Methyl ethyl ketone	78-93-3	1 %
Cyclohexanone	108-94-1	0.1 %
Tetrahydrofuran	109-99-9	1 %

### Additional Regulatory Information

#### A: General Product Information

This product contains trace amounts of chemicals known to the State of California to cause cancer. Under normal use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk Level" (NSRL) are unlikely. The use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 will minimize exposure to these chemicals.

**Material Name: UNI-WELD PURPLE OR CLEAR PRIMER NSF LISTED**

**B: Component Analysis - Inventory**

Component	CAS #	TSCA	CAN	EEC
Acetone	67-64-1	Yes	DSL	EINECS
Methyl ethyl ketone	78-93-3	Yes	DSL	EINECS
Cyclohexanone	108-94-1	Yes	DSL	EINECS
Tetrahydrofuran	109-99-9	Yes	DSL	EINECS

**\*\*\* Section 16 - Other Information \*\*\***

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

**Literature References**

None

**Other Information**

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

End of Sheet



SDS Manual

Pesticide



SDS Manual

# Pesticide

- Wasp and Hornet Killer 337



# SAFETY DATA SHEET

## 1. Identification

Product number 100000940  
 Product identifier JET FORCE WASP AND HORNET KILLER  
 Company information Claire Manufacturing Co.  
 1005 S. Westgate Drive  
 Addison, IL 60101 United States  
 Company phone General Assistance 1-630-543-7600  
 Emergency telephone US 1-866-836-8855  
 Emergency telephone outside US 1-952-852-4646  
 Version # 01  
 Recommended use Not available.  
 Recommended restrictions None known.

## 2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1  
 Health hazards Aspiration hazard Category 1  
 Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2  
 Hazardous to the aquatic environment, long-term hazard Category 2  
 OSHA defined hazards Not classified.

### Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Toxic to aquatic life.

### 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. Avoid breathing gas. Use only outdoors or in a well-ventilated area.

Response If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Do NOT induce vomiting.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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

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	%
Distillates (Petroleum), Hydrotreated Light		64742-47-8	80 - 90
Carbon Dioxide		124-38-9	2.5 - 10

Chemical name	Common name and synonyms	CAS number	%
Isopropyl Alcohol		67-63-0	2.5 - 10
d-Phenothrin		26002-80-2	0.1 - 1
Tetramethrin		7696-12-0	0.1 - 1
Other components below reportable levels			1 - 2.5

#: This substance has workplace exposure limit(s).

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments The full text for all R-phrases is displayed in Section 16 of the SDS.

#### 4. First-aid measures

Inhalation	If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Call a physician or Poison Control Center immediately. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately 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. Get medical attention if irritation develops or persists. Continue rinsing. Get medical attention immediately.
Ingestion	If material is ingested, immediately contact a poison control center. Call a physician or poison control center immediately. Rinse mouth thoroughly. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. 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. Keep victim under observation. Keep victim warm.

#### 5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Dry chemicals. Carbon dioxide (CO <sub>2</sub> ).
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.
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 and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. 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 container from fire area if it can be done without risk. Move containers from fire area if you can do so without risk. 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. Keep out of low areas. Wear appropriate personal protective equipment. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. 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. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. 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 entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: 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. After removal flush contaminated area thoroughly with water. This material and its container must be disposed of as hazardous waste.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

Precautions for safe handling	Will ignite if exposed to intensive heat or open air. Vapors may form explosive mixtures with air. 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. Avoid exposure - obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Use only in area provided with appropriate exhaust ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol.  Store locked up. Avoid exposure - obtain special instructions before use. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. The pressure in sealed containers can increase under the influence of heat. 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 in a well-ventilated place. Keep container dry. Refrigeration recommended. Keep away from food, drink and animal feedingstuffs. 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). Level 3 Aerosol.

## 8. Exposure controls/personal protection

### Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m3
Isopropyl Alcohol (CAS 67-63-0)	PEL	5000 ppm
		980 mg/m3
		400 ppm
US. ACGIH Threshold Limit Values		
Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Isopropyl Alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
US. NIOSH: Pocket Guide to Chemical Hazards		
Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm 9000 mg/m3
Isopropyl Alcohol (CAS 67-63-0)	STEL	5000 ppm 1225 mg/m3
	TWA	500 ppm 980 mg/m3 400 ppm

Biological limit values

ACGIH Biological Exposure Indices Components	Value	Determinant	Specimen	Sampling Time
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

- Exposure guidelines: No Exposure standards allocated.
- Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.
- Individual protection measures, such as personal protective equipment
  - Eye/face protection: Avoid exposure - obtain special instructions before use. Face shield is recommended. Face-shield. Do not get in eyes. Wear safety glasses; chemical goggles (if splashing is possible).
  - Hand protection: Avoid exposure - obtain special instructions before use. Wear appropriate chemical resistant gloves.
  - Skin protection
    - Other: Avoid exposure - obtain special instructions before use. Wear appropriate chemical resistant clothing. It may provide little or no thermal protection. Chemical resistant gloves. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
    - Skin protection
  - Respiratory protection: Avoid exposure - obtain special instructions before use. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
  - Thermal hazards: Wear appropriate thermal protective clothing, when necessary.
- General hygiene considerations: Do not get in eyes. When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. 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: Compressed liquefied gas.
  - Physical state: Liquid.
  - Form: Aerosol.
  - Color: Colorless.
- Odor: Solvent.
- Odor threshold: Not available.
- pH: Not available.
- Melting point/freezing point: Not available.

Initial boiling point and boiling range	438.64 °F (225.91 °C) estimated
Flash point	229.0 °F (109.4 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.5 % estimated
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	90 - 110 psig @70F estimated
Vapor density	Not available.
Relative density	0.826 g/cm3 estimated
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	421 °F (216.11 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.83 g/cm3 estimated
Flammability class	Combustible IIIB estimated
Heat of combustion	38.77 kJ/g estimated
Heat of combustion (NFPA 30B)	38.53 kJ/g estimated
Percent volatile	8.53 % estimated
Specific gravity	0.826 estimated
VOC (Weight %)	8.53 % estimated

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Risk of explosion. Risk of ignition. Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air. Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Isocyanates. Oxygen. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Inhalation	Narcotic effects. Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity Acute LD50: 2237 mg/kg, Rat, Dermal  
 May be fatal if swallowed and enters airways. Narcotic effects.

Product	Species	Test Results
14 OZ JET FORCE WASP HRNT LB 12PK (CAS Mixture)		
Acute Dermal LD50	Rabbit	1142.4321 mg/kg, 24 Hours estimated 193.0048 ml/kg, 24 Hours estimated 2237 mg/kg
Inhalation LC50	Cat	952.6719 mg/l, 6 Hours estimated
	Rat	1116.4125 mg/l, 6 Hours estimated 14.8856 mg/l, 8 Hours estimated 6 mg/l/4h 5.3176 mg/l, 4 Hours estimated
Oral LD50	Rat	33363.3633 ml/kg estimated 68.7285 g/kg estimated
Components	Species	Test Results

Distillates (Petroleum), Hydrotreated Light (CAS 64742-47-8)		
Acute Dermal LD50	Rabbit	> 2000 mg/kg > 2000 mg/kg, 24 Hours
Inhalation LC50	Rat	> 7.5 mg/l, 6 Hours > 4.6 mg/l, 4 Hours
Oral LD50	Rat	> 5000 mg/kg
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
Tetramethrin (CAS 7696-12-0)		
Acute Oral LD50	Rat	4640 mg/kg

\* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Not expected to be hazardous by OSHA criteria.

Serious eye damage/eye irritation Harmful in contact with eyes.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Not expected to be hazardous by OSHA criteria. Not expected to be hazardous by WHMIS criteria.

Carcinogenicity Suspect cancer hazard. Not expected to be hazardous by WHMIS criteria.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
Not listed.

Reproductive toxicity Avoid exposure to women during early pregnancy. Not expected to be hazardous by OSHA criteria.

Specific target organ toxicity - single exposure Narcotic effects.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways. Not likely, due to the form of the product.

Chronic effects Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects. Not expected to be hazardous by WHMIS criteria.

## 12. Ecological information

Ecotoxicity LC50: 48.72 mg/L, Fish, 96.00 Hours  
IC50: 11769 mg/L, Algae, 72.00 Hours  
EC50: 629 mg/L, Daphnia, 48.00 Hours  
Toxic to aquatic life. Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product		Species	Test Results
<b>14 OZ JET FORCE WASP HRNT LB 12PK (CAS Mixture)</b>			
Aquatic			
Algae	IC50	Algae	11769 mg/L, 72 Hours
Crustacea	EC50	Daphnia	629 mg/L, 48 Hours
Fish	LC50	Fish	48.7193 mg/L, 96 Hours
<b>Components</b>			
<b>Distillates (Petroleum), Hydrotreated Light (CAS 64742-47-8)</b>			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours
<b>Isopropyl Alcohol (CAS 67-63-0)</b>			
Aquatic			
Algae	IC50	Algae	1000.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	13299 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
<b>Tetramethrin (CAS 7696-12-0)</b>			
Aquatic			
Fish	LC50	Carp (Cyprinus carpio)	0.095 - 0.16 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 No data available.

Partition coefficient n-octanol / water (log Kow)

Isopropyl Alcohol 0.05

Tetramethrin 4.73

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	Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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	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. Do not re-use empty containers.

### 14. Transport information

#### DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	None
Label(s)	None
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

#### 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.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Forbidden.
Cargo aircraft only	Forbidden.
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 Not available.  
 Special precautions for user Read safety instructions, SDS and emergency procedures before handling. 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.  
 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.  
 All components are on the U.S. EPA TSCA Inventory List.

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 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 No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
d-Phenothrin	26002-80-2	0.1 - 1
Tetramethrin	7696-12-0	0.1 - 1

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.

FIFRA Information

Hazard statement This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!  
Harmful if absorbed through skin.  
Moderately irritating to the eyes.

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Carbon Dioxide (CAS 124-38-9)  
Isopropyl Alcohol (CAS 67-63-0)

US. New Jersey Worker and Community Right-to-Know Act

Carbon Dioxide (CAS 124-38-9)  
d-Phenothrin (CAS 26002-80-2)  
Isopropyl Alcohol (CAS 67-63-0)  
Tetramethrin (CAS 7696-12-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon Dioxide (CAS 124-38-9)  
Isopropyl Alcohol (CAS 67-63-0)

US. Rhode Island RTK

d-Phenothrin (CAS 26002-80-2)  
Isopropyl Alcohol (CAS 67-63-0)  
Tetramethrin (CAS 7696-12-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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)	No
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)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
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 08-06-2014  
Version # 01



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. 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. Claire Manufacturing Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Revision Information

Product and Company Identification: Product and Company Identification  
Composition / Information on Ingredients: Ingredients  
GHS: Classification

**SECTION IV - HEALTH HAZARD INFORMATION**

EFFECTS OF OVEREXPOSURE - Conditions to Avoid Prolonged, repeated skin contact with grease may slight skin discomfort.	
THRESHOLD LIMIT VALUE N/E	
PRIMARY ROUTES OF ENTRY Inhalation <input type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (specify) Ingestion	
EMERGENCY FIRST AID PROCEDURES SKIN CONTACT: See other precautions at bottom of page. EYE CONTACT: None INGESTION: Consult Physician	

**SECTION V - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID Direct exposure to flame or excessive heat.
	STABLE	X	
INCOMPATIBILITY (materials to avoid) Strong Oxidizing agents			
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID None
	WILL NOT OCCUR	X	

**SECTION VI - SPILL AND LEAK PROCEDURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Sweep up to prevent tripping	
WASTE DISPOSAL METHOD Landfill or incinerate in accordance with local, state and federal guidelines.	
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) N/A	
RCRA HAZARDOUS WASTE NO. (40CFR 261.33) N/A	
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) N/A	
Theoretical _____ lb/gal    NA	Analytical _____ lb/gal    N/A

**SECTION VII - PERSONAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (specify type) None normally required.			
VENTILATION	LOCAL EXHAUST (Specify Rate)	None normally required.	SPECIAL    N/A
	MECHANICAL (General) (Specify Rate)	Recommended in closed areas.	OTHER    N/A
PROTECTIVE GLOVES (specify type)		EYE PROTECTION (specify type) Per company policy.	
OTHER PROTECTIVE EQUIPMENT None			


**SECTION VIII - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Avoid excessive heat or open flames.	
OTHER PRECAUTIONS None	

**SECTION IX - ADDITIONAL INFORMATION**

None
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N/A = Not Applicable, N.E. = None Established

<b>THIS MATERIAL SAFETY DATA SHEET PREPARED BY:</b>	
NAME    Christopher B. Young TITLE    Sr. Quality Engineer DATE:    02/14/2014	SIGNATURE 



SDS Manual

Petroleum



# SDS Manual

# Petroleum

- Anti-freeze 351
- Gasoline 360
- Ethanol Gasoline 383
- Houghton-Safe 620E 392
- Propane 405

# SAFETY DATA SHEET

## PETRO-CANADA ANTIFREEZE



000003000606

Version 2.0

Revision Date 2016/03/07

Print Date 2016/03/07

### SECTION 1. IDENTIFICATION

Product name : PETRO-CANADA ANTIFREEZE

Synonyms : Universal Antifreeze, Radiator Antifreeze, Diesel Antifreeze, Petro-Canada Antifreeze-Coolant, Petro-Canada Heavy Duty Antifreeze-Coolant, Pre-Mix Antifreeze, Petro-Canada Premium Radiator Antifreeze, Diesel Engine Coolant, Pre-Mixed Radiator Antifreeze/Coolant Petro-Canada.

Product code : RADDRX, RAD, RAD4U

Manufacturer or supplier's details  
Petro-Canada  
P.O. Box 2844, 150 - 6th Avenue South-West  
Calgary Alberta T2P 3E3  
Canada

Emergency telephone number : Suncor Energy: +1 403-296-3000;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

#### Recommended use of the chemical and restrictions on use

Recommended use : Used as an engine antifreeze coolant.

Prepared by : Product Safety: +1 905-804-4752

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	Clear liquid.
Colour	green
Odour	No data available
Hazard Summary	Toxic if swallowed. May cause teratogenicity/embryotoxicity

#### Potential Health Effects

Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact

Inhalation : May cause respiratory tract irritation.

Eyes : May cause eye irritation.

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Ingestion : Toxic if swallowed.  
Ingestion of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.

Aggravated Medical Condition : None known.

### Other hazards

None known.

### 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.

### ACGIH

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

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical Name	CAS-No.	Concentration
ethanediol	107-21-1	60 - 100 %

## SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.

In case of skin contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash contaminated clothing before reuse.  
Seek medical advice.

In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.

If swallowed : Rinse mouth with water.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.

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Never give anything by mouth to an unconscious person.  
Seek medical advice.

Most important symptoms and effects, both acute and delayed : First aider needs to protect himself.

---

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Foam
- Unsuitable extinguishing media : No information available.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), smoke and irritating vapours as products of incomplete combustion.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and full protective wear.  
Wear a positive-pressure supplied-air respirator with full face-piece.

---

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.

---

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.  
Do not ingest.  
Avoid contact with skin, eyes and clothing.  
Use only with adequate ventilation.

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In case of insufficient ventilation, wear suitable respiratory equipment.  
 Ensure all equipment is electrically grounded before beginning transfer operations.  
 Keep away from heat and sources of ignition.  
 Keep container closed when not in use.

Conditions for safe storage : Store in original container.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Keep in a dry, cool and well-ventilated place.  
 Keep in properly labelled containers.  
 To maintain product quality, do not store in heat or direct sunlight.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanediol	107-21-1	Ceiling	100 mg/m <sup>3</sup>	CA AB OEL
		TWA (particulate)	10 mg/m <sup>3</sup>	CA BC OEL
		STEL (particulate)	20 mg/m <sup>3</sup>	CA BC OEL
		Ceiling (aerosol)	100 mg/m <sup>3</sup>	CA BC OEL
		Ceiling (Vapour)	50 ppm	CA BC OEL
		Ceiling (Vapour and mist)	50 ppm 127 mg/m <sup>3</sup>	CA QC OEL
		Ceiling (Aerosol only)	100 mg/m <sup>3</sup>	ACGIH

**Engineering measures** : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed 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.

**Filter type** : organic vapour filter

**Hand protection Material** : nitrile rubber. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any



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material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

- Remarks : 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 : Wear face-shield and protective suit for abnormal processing problems.
- 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.
- Protective measures : Wash contaminated clothing before re-use.
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use.  
Wash face, hands and any exposed skin thoroughly after handling.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Clear liquid.
- Colour : green
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Melting point/range : -13 °C (9 °F)
- Boiling point/boiling range : 197 °C (387 °F)
- Flash point : 111 °C (232 °F)  
Method: closed cup
- Fire Point : No data available
- Auto-ignition Temperature : 398 °C (748 °F)
- Evaporation rate : < 0.01
- Flammability : May be combustible at high temperature.
- Upper explosion limit : 21.6 - 22.0 %(V)
- Lower explosion limit : 3.2 %(V)

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Vapour pressure	: 0.09 mmHg (20 °C / 68 °F)
Relative vapour density	: estimated 2.14 Air = 1
Relative density	: 1.12 - 1.15 (20 °C / 68 °F) Water = 1
Solubility(ies)	
Water solubility	: No data available
Partition coefficient: n-octanol/water	: log Pow: -1.36 (20 °C)
Viscosity	
Viscosity, kinematic	: estimated 18.86 mm <sup>2</sup> /s (20 °C / 68 °F)
Explosive properties	: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

---

**SECTION 10. STABILITY AND REACTIVITY**

Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	: Heat, flames and sparks. Avoid temperatures above 111°C.
Incompatible materials	: Reactive with oxidising agents, acids and alkalis.
Hazardous decomposition products	: May release CO <sub>x</sub> , smoke and irritating vapours when heated to decomposition.

---

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

Eye contact  
Ingestion  
Inhalation  
Skin contact

**Acute toxicity**

**Product:**

Acute oral toxicity	: Remarks: No data available
Acute inhalation toxicity	: Remarks: No data available
Acute dermal toxicity	: Remarks: No data available

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**Components:**

**ethanediol:**

Acute oral toxicity : LD50 (Rat): 4,700 mg/kg,  
LD50 (Mouse): 5,500 mg/kg,

Acute inhalation toxicity : LC50 (Rat): 2.725 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg,

**Skin corrosion/irritation**

**Components:**

**ethanediol:**

Result: Mild skin irritation

**Serious eye damage/eye irritation**

**Components:**

**ethanediol:**

Result: Mild eye irritation

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish : Remarks: No data available

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Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

**Bioaccumulative potential**

**Components:**

**ethanediol :**

Partition coefficient: n-octanol/water : log Pow: -1.36

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

Additional ecological information : No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

---

**SECTION 14. TRANSPORT INFORMATION**

**International Regulation**

**IATA-DGR**

Not regulated as a dangerous good

# SAFETY DATA SHEET

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### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

#### TDG

Not regulated as a dangerous good

---

## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
D2A: Very Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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

**DSL** : On the inventory, or in compliance with the inventory  
**TSCA** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

---

## SECTION 16. OTHER INFORMATION

For Copy of (M)SDS : Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)  
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228  
For Product Safety Information: 1 905-804-4752

Prepared by : Product Safety: +1 905-804-4752

Revision Date : 2016/03/07

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.



# SAFETY DATA SHEET

SDS ID NO.: 0127MAR019  
Revision Date: 06/01/2016

## 1. IDENTIFICATION

**Product Name:** Marathon Petroleum Gasoline - All Grades  
**Synonym:** Gasoline; Regular Unleaded Gasoline; Conventional Regular Unleaded Gasoline; Mid Grade Unleaded Gasoline; Conventional Mid Grade Unleaded Gasoline; Premium Unleaded Gasoline; Conventional Premium Unleaded Gasoline; Sub-Octane Gasoline; Regular RBOB; Super RBOB; Premium RBOB; RBOB; Reformulated Blend Stock For Oxygenated Blending; 84 Octane Gasoline; CBOB; Premium CBOB; Conventional Blend Stock for Oxygenate Blending; Recreational Gasoline; Recreational Gasoline; Recreational Unleaded Gasoline; 89 Recreational Gasoline; Brand 89 Recreational Gasoline; 7.0 Max RVP 89 Recreational Gasoline; BR 7.0 Max RVP 89 Recreational Gasoline; 90 Recreational Gasoline; 90 Marina Gasoline; Brand 91 Recreational Gasoline; 91 Recreational Gasoline; 91 Marina Gasoline; 90 Octane Midgrade Gasoline with No Ethanol; 0125MAR019; 0126MAR019; 0134MAR019; 0313MAR019; 0314MAR019  
**Chemical Family:** Complex Hydrocarbon Substance  
**Recommended Use:** Fuel.  
**Restrictions on Use:** All others.

**Manufacturer, Importer, or Responsible Party Name and Address:**  
**MARATHON PETROLEUM COMPANY LP**  
539 South Main Street  
Findlay, OH 45840

**SDS information:** 1-419-421-3070  
**Emergency Telephone:** 1-877-627-5463

## 2. HAZARD IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 1
Skin corrosion/irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

#### Hazards Not Otherwise Classified (HNOC)

Static accumulating flammable liquid

Label elements

**EMERGENCY OVERVIEW**

**Danger**

EXTREMELY FLAMMABLE LIQUID AND VAPOR  
May accumulate electrostatic charge and ignite or explode  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness  
May cause genetic defects  
May cause cancer  
Suspected of damaging fertility or the unborn child  
Toxic to aquatic life with long lasting effects



**Appearance** Clear yellow liquid

**Physical State** Liquid

**Odor** Hydrocarbon

**Precautionary Statements - 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  
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/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash hands and any possibly exposed skin thoroughly after handling  
Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation occurs: Get medical attention  
Wash contaminated clothing 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 if you feel unwell  
IF SWALLOWED: Immediately call a POISON CENTER or doctor  
Do NOT induce vomiting  
In case of fire: Use water spray, fog or regular foam for extinction  
Collect spillage

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
Keep cool  
Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container at an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Gasoline is a complex combination of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having molecular chains ranging in length from four to ten carbons. May contain small amounts of dye and other additives (>0.02%) which are not considered hazardous at the concentrations used.

**Composition Information:**

Name	CAS Number	% Concentration
Gasoline	86290-81-5	100
Heptane (mixed isomers)	142-82-5	2.5-26
Pentane (mixed isomers)	78-78-4	6.5-19
Butane (mixed isomers)	106-97-8	0.5-14
Hexane Isomers (other than n-Hexane)	107-83-5	2-12
Toluene	108-88-3	3-9.5
Xylene (mixed isomers)	1330-20-7	3.5-9.5
n-Hexane	110-54-3	0.1-4.5
Cumene	98-82-8	0-4
1,2,4 Trimethylbenzene	95-63-6	1-4
Ethylbenzene	100-41-4	0.5-2.5
Benzene	71-43-2	0.1-1.5
Cyclohexane	110-82-7	0-1.5
Octane	111-65-9	0-1.5
1,2,3-Trimethylbenzene	526-73-8	0-1
Naphthalene	91-20-3	0.1-0.5

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

**4. FIRST AID MEASURES**

**First Aid Measures**

**General Advice:**

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Inhalation:**

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. If symptoms occur get medical attention.

**Skin Contact:**

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

**Eye Contact:**

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.



**Ingestion:** Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**Most important signs and symptoms, both short-term and delayed with overexposure**

**Adverse Effects:** Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

**Indication of any immediate medical attention and special treatment needed**

**Notes To Physician:** INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.

INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

**Unsuitable extinguishing media**

Do not use straight water streams to avoid spreading fire.

**Specific hazards arising from the chemical**

This product has been determined to be an extremely flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

**Hazardous combustion products**

Smoke, carbon monoxide, and other products of incomplete combustion.

**Explosion data**

Sensitivity to Mechanical Impact No.  
Sensitivity to Static Discharge Yes.

**Special protective equipment and precautions for firefighters**

Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

**Additional firefighting tactics**

FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. 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.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.

**NFPA** Health 1 Flammability 3 Instability 0 Special Hazard -

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions:** Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources.
- Protective equipment:** Use personal protection measures as recommended in Section 8.
- Emergency procedures:** Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
- Environmental precautions:** Avoid release to the environment. Avoid subsoil penetration. Ethanol in gasoline phase separates in contact with water. Monitor downstream for dissolved ethanol or other appropriate indicators.
- Methods and materials for containment:** Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.
- Methods and materials for cleaning up:** Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

**7. HANDLING AND STORAGE**

**Safe Handling Precautions:**

NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. No smoking. Use only non-sparking tools. Avoid contact with skin, eyes and clothing. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Avoid repeated and prolonged skin contact. Use personal protection measures as recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.

Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.

Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.

A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.

Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).

**Storage Conditions:**

Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not store near an open flame, heat or other sources of ignition.

**Incompatible Materials**

Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Name	ACGIH TLV	OSHA PELS:	OSHA - Vacated PELs	NIOSH IDLH
Gasoline 86290-81-5	300 ppm TWA 500 ppm STEL	-	300 ppm TWA 900 mg/m <sup>3</sup> TWA 500 ppm STEL 1500 mg/m <sup>3</sup> STEL	-

Heptane (mixed isomers) 142-82-5	400 ppm TWA 500 ppm STEL	TWA: 500 ppm TWA: 2000 mg/m <sup>3</sup>	400 ppm TWA 1600 mg/m <sup>3</sup> TWA 500 ppm STEL 2000 mg/m <sup>3</sup> STEL	750 ppm
Pentane (mixed isomers) 78-78-4	1000 ppm TWA	-	-	-
Butane (mixed isomers) 106-97-8	1000 ppm STEL	-	800 ppm TWA 1900 mg/m <sup>3</sup> TWA	-
Hexane Isomers (other than n-Hexane) 107-83-5	500 ppm TWA 1000 ppm STEL	-	500 ppm TWA 1800 mg/m <sup>3</sup> TWA 1000 ppm STEL 3600 mg/m <sup>3</sup> STEL	-
Toluene 108-88-3	20 ppm TWA	TWA: 200 ppm Ceiling: 300 ppm	100 ppm TWA 375 mg/m <sup>3</sup> TWA 150 ppm STEL 560 mg/m <sup>3</sup> STEL	500 ppm
Xylene (mixed isomers) 1330-20-7	100 ppm TWA 150 ppm STEL	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	100 ppm TWA 435 mg/m <sup>3</sup> TWA 150 ppm STEL 655 mg/m <sup>3</sup> STEL	900 ppm
n-Hexane 110-54-3	50 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 500 ppm TWA: 1800 mg/m <sup>3</sup>	50 ppm TWA 180 mg/m <sup>3</sup> TWA	1100 ppm
Cumene 98-82-8	50 ppm TWA	TWA: 50 ppm TWA: 245 mg/m <sup>3</sup> Skin	50 ppm TWA 245 mg/m <sup>3</sup> TWA Limit applies to skin	900 ppm
1,2,4 Trimethylbenzene 95-63-6	25 ppm TWA	-	25 ppm TWA 125 mg/m <sup>3</sup> TWA	-
Ethylbenzene 100-41-4	20 ppm TWA	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	100 ppm TWA 435 mg/m <sup>3</sup> TWA 125 ppm STEL 545 mg/m <sup>3</sup> STEL	800 ppm
Benzene 71-43-2	0.5 ppm TWA 2.5 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm (applies to industry segments exempt from the benzene standard) TWA: 1 ppm STEL: 5 ppm (see 29 CFR 1910.1028)	25 ppm Ceiling 1 ppm TWA 5 ppm STEL	500 ppm
Cyclohexane 110-82-7	100 ppm TWA	TWA: 300 ppm TWA: 1050 mg/m <sup>3</sup>	300 ppm TWA 1050 mg/m <sup>3</sup> TWA	1300 ppm
Octane 111-65-9	300 ppm TWA	TWA: 500 ppm TWA: 2350 mg/m <sup>3</sup>	300 ppm TWA 1450 mg/m <sup>3</sup> TWA 375 ppm STEL 1800 mg/m <sup>3</sup> STEL	1000 ppm
1,2,3-trimethylbenzene 526-73-8	25 ppm TWA	-	25 ppm TWA 125 mg/m <sup>3</sup> TWA	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	10 ppm TWA 50 mg/m <sup>3</sup> TWA 15 ppm STEL 75 mg/m <sup>3</sup> STEL	250 ppm

**Notes:** The manufacturer has voluntarily elected to provide exposure limits contained in OSHA's 1989 air contaminants standard in its SDSs, even though certain of those exposure limits were vacated in 1992.

**Engineering measures:** Local or general exhaust required in an enclosed area or when there is inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

**Personal protective equipment**

**Eye protection:** Use goggles or face-shield if the potential for splashing exists.

**Skin and body protection:** Use nitrile rubber, Viton® or PVA gloves for repeated or prolonged skin exposure. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

**Respiratory protection:** Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear yellow liquid
Color	Yellow
Odor	Hydrocarbon
Odor Threshold	No data available.

<u>Property</u>	<u>Values (Method)</u>
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	24-210 °C / 75-410 °F (ASTM D86)
Flash Point	-43 °C / -45 °F
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	7.6
Lower Flammability Limit:	1.4
Explosion limits:	No data available.
Vapor Pressure	5.5-15 psi (ASTM D4814)
Vapor Density	3-4
Specific Gravity / Relative Density	0.70-0.76
Water Solubility	No data available.
Solubility in other solvents	No data available.
Partition Coefficient	2.13-4.5
Decomposition temperature	No data available.
pH:	Not applicable
Autoignition Temperature	280 °C / 536 °F
Kinematic Viscosity	No data available.
Dynamic Viscosity	No data available.
Explosive Properties	No data available.
VOC Content (%)	100%
Density	No data available.
Bulk Density	Not applicable.

**10. STABILITY AND REACTIVITY**

<u>Reactivity</u>	The product is non-reactive under normal conditions.
<u>Chemical stability</u>	The material is stable at 70°F, 760 mmHg pressure.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Hazardous polymerization</u>	Will not occur.

Conditions to avoid

Excessive heat, sources of ignition, open flame.

Incompatible Materials

Strong oxidizing agents.

Hazardous decomposition products

None known under normal conditions of use.

**11. TOXICOLOGICAL INFORMATION**

Potential short-term adverse effects from overexposures

<b>Inhalation</b>	May cause irritation of respiratory tract. May cause drowsiness or dizziness. Breathing high concentrations of this material in a confined space or by intentional abuse can cause irregular heartbeats which can cause death.
<b>Eye contact</b>	Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.
<b>Skin contact</b>	Causes skin irritation. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.
<b>Ingestion</b>	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
Gasoline 86290-81-5	14000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Heptane (mixed isomers) 142-82-5	-	3000 mg/kg (Rabbit)	103 g/m <sup>3</sup> (Rat) 4 h
Pentane (mixed isomers) 78-78-4	-	-	450 mg/L (Mouse) 2 h
Butane (mixed isomers) 106-97-8	-	-	658 mg/L (Rat) 4 h
Hexane isomers (other than n-Hexane) 107-83-5	> 5000 mg/kg (Rat)	-	-
Toluene 108-88-3	> 2000 mg/kg (Rat)	8390 mg/kg (Rabbit)	12.5 mg/L (Rat) 4 h
Xylene (mixed isomers) 1330-20-7	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.04 mg/L (Rat) 4 h
n-Hexane 110-54-3	15000 mg/kg (Rat)	3000 mg/kg (Rabbit)	48000 ppm (Rat) 4 h
Cumene 98-82-8	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 20 mg/L (Rat) 6 h
1,2,4 Trimethylbenzene 95-63-6	3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	18,000 mg/m <sup>3</sup> (Rat) 4 h
Ethylbenzene 100-41-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h
Benzene 71-43-2	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 20 mg/l (Rat) 4 h
Cyclohexane 110-82-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	13.9 mg/L (Rat) 4 h
Octane 111-65-9	-	-	118 g/m <sup>3</sup> (Rat) 4 h
1,2,3-trimethylbenzene 526-73-8	-	-	-
Naphthalene 91-20-3	490 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 340 mg/m <sup>3</sup> (Rat) 1 h

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

**NAPHTHAS:** In a large epidemiological study on over 15,000 employees at several petroleum refineries and amongst residents located near these refineries, no increased risk of kidney cancer was observed in association with gasoline exposures (a similar material). In a similar study, no increased risk of kidney cancer was observed among petroleum refinery workers, but there was a slight trend in the incidence of kidney cancers among service station employees, especially after a 30-year latency period. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**C9 AROMATIC HYDROCARBONS:** A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm.

**PENTANES:** Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

**BUTANES:** Studies in laboratory animals indicate exposure to extremely high levels of butanes (1-10 or higher vol.% in air) may cause cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

**TOLUENE:** Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Abuse of toluene at high concentrations (e.g., glue sniffing and solvent abuse) has been associated with adverse effects on the liver, kidney and nervous system, and can cause CNS depression, cardiac arrhythmias, and death. Studies of workers indicate longterm exposure may be related to impaired color vision and hearing. Some studies of workers suggest longterm exposure may be related to neurobehavioral and cognitive changes. Some of these effects have been observed in laboratory animals following repeated exposure to high levels of toluene. Several studies of workers suggest longterm exposure may be related to small increases in spontaneous abortions and changes in some gonadotropic hormones. However, the weight of evidence does not indicate toluene is a reproductive hazard to humans. Studies in laboratory animals indicate some changes in reproductive organs following high levels of exposure, but no significant effects on mating performance or reproduction were observed. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Findings in laboratory animals have been largely negative. Positive findings include small increases in minor skeletal and visceral malformations and developmental delays following very high levels of maternal exposure. Studies of workers indicate long-term exposure may be related to effects on the liver, kidney and blood, but these appear to be limited to changes in serum enzymes and decreased leukocyte counts. Adverse effects on the liver, kidney, thymus and nervous system were observed in animal studies following very high levels of exposure. The relevance of these findings to humans is not clear at this time.

**XYLENES, ALL ISOMERS:** Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, nervous system damage and narcosis. Effects may be increased by the use of alcoholic beverages. Evidence of liver and kidney impairment were reported in workers recovering from a gross overexposure. Effects from Prolonged or Repeated Exposure: Impaired neurological function was reported

in workers exposed to solvents including xylene. Studies in laboratory animals have shown evidence of impaired hearing following high levels of exposure. Studies in laboratory animals suggest some changes in reproductive organs following high levels of exposure but no significant effects on reproduction were observed. Studies in laboratory animals indicate skeletal and visceral malformations, developmental delays, and increased fetal resorptions following extremely high levels of maternal exposure with evidence of maternal toxicity. The relevance of these observations to humans is not clear at this time. Adverse effects on the liver, kidney, bone marrow (changes in blood cell parameters) were observed in laboratory animals following high levels of exposure. The relevance of these observations to humans is not clear at this time.

1,2,4-TRIMETHYLBENZENE: The following information pertains to a mixture of C9 aromatic hydrocarbons, over 40% of which was composed of 1,2,4-trimethylbenzene. A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm. Embryotoxicity has been reported in studies of laboratory animals. Adverse effects included increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate.<n><n>

N-HEXANE: Long-term or repeated exposure to n-hexane can cause peripheral nerve damage. Initial symptoms are numbness of the fingers and toes. Also, motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. Testicular atrophy and partial to full loss of the germ cell line were observed in sub-chronic high-dose inhalation studies of laboratory rodents. These effects appeared irreversible. Rodent reproduction studies have shown evidence of reduced fetal weight but no frank malformations.

CUMENE: Overexposure to cumene may cause upper respiratory tract irritation and CNS depression. Studies in laboratory animals indicate evidence of respiratory tract hyperplasia, and adverse effects on the liver, kidney and adrenal glands following high level exposure. The relevance of these findings to humans is not clear at this time. Findings from lifetime laboratory rodent inhalation studies were as follows: In F344/N rats: an increased incidence of renal carcinomas and adenomas, respiratory epithelial adenomas, and interstitial cell adenomas of the testes. In B6C3F1 mice: an increased incidence of carcinomas and adenomas of the bronchi and lung, liver neoplasms, hemangiosarcomas of the spleen, and adenomas of the thyroid.

ETHYLBENZENE: Findings from a 2-year inhalation study in rodents conducted by NTP were as follows: Effects were observed only at the highest exposure level (750 ppm). At this level the incidence of renal tumors was elevated in male rats (tubular carcinomas) and female rats (tubular adenomas). The incidence of tumors was also elevated in male mice (alveolar and bronchiolar carcinomas) and female mice (hepatocellular carcinomas). IARC has classified ethyl benzene as "possibly carcinogenic to humans" (Group 2B). Studies in laboratory animals indicate some evidence of post-implantation deaths following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals indicate limited evidence of renal malformations, resorptions, and developmental delays following high levels of maternal exposure with evidence of maternal toxicity. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals have demonstrated evidence of ototoxicity (hearing loss) following exposure levels as low as 300 ppm for 5 days. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland.

BENZENE: Studies of workers exposed to benzene show clear evidence that overexposure can cause cancer and other diseases of the blood forming organs including Acute



Myelogenous Leukemia (AML), and Aplastic Anemia (AA), an often fatal disease. Some studies suggest overexposure to benzene may also be associated with Myelodysplastic Syndrome (MDS). Findings from a case control study of workers exposed to benzene was reported during the 2009 Benzene Symposium in Munich included an increase in Acute Myeloid Leukemias and Non-Hodgkins Lymphoid Neoplasms (NHLN) of the subtype follicular lymphoma (FL) in some occupational categories. Some studies of workers exposed to benzene have shown an association with increased rates of chromosome aberrations in circulating lymphocytes. One study of women workers exposed to benzene suggested a weak association with irregular menstruation. However, other studies of workers exposed to benzene have not demonstrated clear evidence of an effect on fertility or reproductive outcome in humans. Benzene can cross the placenta and affect the developing fetus. Cases of AA have been reported in the offspring of persons severely overexposed to benzene. Studies in laboratory animals indicate that prolonged, repeated exposure to high levels of benzene vapor can cause bone marrow suppression and cancer in multiple organ systems. Studies in laboratory animals show evidence of adverse effects on male reproductive organs following high levels of exposure but no significant effects on reproduction have been observed. Embryotoxicity has been reported in studies of laboratory animals but effects were limited to reduced fetal weight and minor skeletal variations. Benzene has been classified as a proven human carcinogen by OSHA and a Group 1 (Carcinogenic to Humans) material by IARC. The current proposed IARC classification for benzene is summarized as follows: Sufficient evidence for Acute Myeloid Leukemia; limited evidence for Acute Lymphatic Leukemia, Chronic Lymphatic Leukemia, Non-Hodgkin Lymphoma, and Multiple Myeloma.

NAPHTHALENE: Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

CARBON MONOXIDE: is a chemical asphyxiant with no warning properties (such as odor). At 400-500 ppm for 1 hour headache and dyspnea may occur. If activity is increased, symptoms of overexposure may include nausea, irritability, increased respiration, tinnitus, sweating, chest pain, confusion, impaired judgement, dizziness, weakness, drowsiness, ataxia, irregular heart beat, cyanosis and pallor. Levels in excess of 1000 ppm can result in collapse, loss of consciousness, respiratory failure and death. Extremely high concentrations (12,800 ppm) can cause immediate unconsciousness and death in 1-3 minutes. Repeated anoxia can lead to central nervous system damage and peripheral neuropathy, with loss of sensation in the fingers, amnesia, and mental deterioration and possible congestive heart failure. Damage may also occur to the fetus, lung, liver, kidney, spleen, cardiovascular system and other organs.

WHOLLY-VAPORIZED UNLEADED GASOLINE: Lifetime exposure to wholly vaporized unleaded gasoline produced an increased incidence of liver tumors in female mice exposed to the highest exposure concentration (2056 ppm) and  $\alpha$ -2 urinary globulin-mediated kidney tumors in male rats. No exposure-related tumors were observed in male mice or female rats. The male-specific rat kidney tumors are not considered relevant to human health. Mice receiving lifetime repeated skin application of various petroleum naphthas exhibited an irritation-dependent increased incidence of skin tumors. Additional studies suggest that these tumors occur through a mechanism that may not be relevant to human health. Epidemiological data from over 18,000 petroleum marketing and distribution workers

showed no increased risk of leukemia, multiple myeloma, or kidney cancer resulting from gasoline exposure. Unleaded gasoline has been identified as possibly carcinogenic to humans (2B) by the International Agency for Research on Cancer (IARC).

COMBUSTION ENGINE EXHAUST: Chronic inhalation studies of gasoline engine exhaust in mice, rats and hamsters did not produce any carcinogenic effects. Condensates/extracts of gasoline engine exhaust produced an increase in tumors compared to controls when testing by skin painting, subcutaneous injection, intratracheal instillation or implantation into the lungs. Gasoline exhaust has been classified as possibly carcinogenic to humans (2B) by the International Agency for Research on Cancer (IARC).

**Adverse effects related to the physical, chemical and toxicological characteristics**

**Signs and Symptoms** Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

**Sensitization** Not expected to be a skin or respiratory sensitizer.

**Mutagenic effects** May cause genetic defects.

**Carcinogenicity** May cause cancer.

Cancer designations are listed in the table below

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Gasoline 86290-81-5	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Not Listed	Not Listed
Heptane (mixed isomers) 142-82-5	Not Listed	Not Listed	Not Listed	Not Listed
Pentane (mixed isomers) 78-78-4	Not Listed	Not Listed	Not Listed	Not Listed
Butane (mixed isomers) 106-97-8	Not Listed	Not Listed	Not Listed	Not Listed
Hexane Isomers (other than n-Hexane) 107-83-5	Not Listed	Not Listed	Not Listed	Not Listed
Toluene 108-88-3	Not Classifiable (A4)	Not Classifiable (3)	Not Listed	Not Listed
Xylene (mixed isomers) 1330-20-7	Not classifiable (A4)	Not classifiable (3)	Not Listed	Not Listed
n-Hexane 110-54-3	Not Listed	Not Listed	Not Listed	Not Listed
Cumene 98-82-8	Not listed	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not listed
1,2,4 Trimethylbenzene 95-63-6	Not Listed	Not Listed	Not Listed	Not Listed
Ethylbenzene 100-41-4	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Not Listed	Not Listed
Benzene 71-43-2	Confirmed human carcinogen (A1)	Carcinogenic to humans (1)	Known to be human carcinogen	Known carcinogen
Cyclohexane 110-82-7	Not Listed	Not Listed	Not Listed	Not Listed
Octane 111-65-9	Not Listed	Not Listed	Not Listed	Not Listed
1,2,3-trimethylbenzene 526-73-8	Not Listed	Not Listed	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (STOT) - single exposure** Respiratory system. Central nervous system.

**Specific Target Organ Toxicity (STOT) - repeated exposure** Not classified.

**Aspiration hazard** May be fatal if swallowed or vomited and enters airways.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Gasoline 86290-81-5	72-hr EC50 = 56 mg/l Algae	96-hr LC50 = 11 mg/l Rainbow trout (static)	-	48-hr LC50 = 7.6 mg/l Daphnia magna
Heptane (mixed isomers) 142-82-5	-	96-hr LC50 = 375 mg/L Tilapia	-	-
Pentane (mixed isomers) 78-78-4	-	96-hr LC50 = 3.1 mg/L Rainbow trout	-	48-hr EC50 = >1 - <10 mg/L Daphnia magna
Butane (mixed isomers) 106-97-8	-	-	-	-
Hexane Isomers (other than n-Hexane) 107-83-5	-	-	-	-
Toluene 108-88-3	72-hr EC50 = 12.5 mg/l Algae	96-hr LC50 <= 10 mg/l Rainbow trout	-	48-hr EC50 = 5.46-9.83 mg/l Daphnia magna 48-hr EC50 = 11.5 mg/l Daphnia magna (Static)
Xylene (mixed isomers) 1330-20-7	72-hr EC50 = 11 mg/l Algae	96-hr LC50 = 8 mg/l Rainbow trout	-	48-hr LC50 = 3.82 mg/l Daphnia magna
n-Hexane 110-54-3	-	96-hr LC50 = 2.5 mg/l Fathead minnow	-	-
Cumene 98-82-8	72-hr EC50 = 2.6 mg/l Algae	96-hr LC50 = 6.04-6.61 mg/l Fathead minnow (Flow-through) 96-hr LC50 = 2.7 mg/l Rainbow trout (semi-static)	-	48-hr EC50 = 7.9-14.1 mg/l Daphnia magna (static)
1,2,4 Trimethylbenzene 95-63-6	-	96-hr LC50 = 7.19-8.28 mg/l Fathead minnow (flow-through)	-	48-hr EC50 = 6.14 mg/L Daphnia magna
Ethylbenzene 100-41-4	72-hr EC50 = 1.7-7.6 mg/l Algae	96-hr LC50 = 4 mg/L Rainbow trout	-	48-hr EC50 = 1-4 mg/L Daphnia magna
Benzene 71-43-2	72-hr EC50 = 29 mg/l Algae	96-hr LC50 = 5.3 mg/l Rainbow trout (flow-through)	-	48-hr EC50 = 8.76-15.6 mg/l Daphnia magna (Static)
Cyclohexane 110-82-7	72-hr EC50 = 500 mg/l Algae	96-hr LC50 = 3.96-5.18 mg/l Fathead minnow	-	48-hr EC50 = 1.7-3.5 mg/L Bay shrimp
Octane 111-65-9	-	-	-	48-hr LC50 = 0.38 mg/l Daphnia magna
1,2,3-trimethylbenzene 526-73-8	-	96-hr LC50 = 7.72 mg/l Fathead Minnow (flow-through)	-	-
Naphthalene 91-20-3	-	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	-	48-hr LC50 = 1.6 mg/l Daphnia magna

**Persistence and degradability** Expected to be inherently biodegradable. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethylbenzene and xylene in groundwater, resulting in elongated plumes of these constituents.

**Bioaccumulation** Has the potential to bioaccumulate.  
**Mobility in soil** May partition into air, soil and water.  
**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Description of Waste Residues**  
 This material may be a flammable liquid waste.

**Safe Handling of Wastes**  
 Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

**Disposal of Wastes / Methods of Disposal**  
 The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Methods of Contaminated Packaging Disposal**  
 Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

**14. TRANSPORT INFORMATION**

**DOT (49 CFR 172.101):**  
 UN Proper Shipping Name: Gasoline  
 UN/Identification No: UN 1203  
 Transport Hazard Class(es): 3  
 Packing Group: II

**TDG (Canada):**  
 UN Proper Shipping Name: Gasoline  
 UN/Identification No: UN 1203  
 Transport Hazard Class(es): 3  
 Packing Group: II

**15. REGULATORY INFORMATION**

**US Federal Regulatory Information:**

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

**EPA Superfund Amendment & Reauthorization Act (SARA):**

**SARA Section 302:** This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List.

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Gasoline	NA
Heptane (mixed isomers)	NA
Pentane (mixed isomers)	NA
Butane (mixed isomers)	NA
Hexane Isomers (other than n-Hexane)	NA
Toluene	NA
Xylene (mixed isomers)	NA

n-Hexane	NA
Cumene	NA
1,2,4 Trimethylbenzene	NA
Ethylbenzene	NA
Benzene	NA
Cyclohexane	NA
Octane	NA
1,2,3-trimethylbenzene	NA
Naphthalene	NA

**SARA Section 304:** This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
Gasoline	NA
Heptane (mixed isomers)	NA
Pentane (mixed isomers)	NA
Butane (mixed isomers)	NA
Hexane Isomers (other than n-Hexane)	NA
Toluene	1000 lb final RQ 454 kg final RQ
Xylene (mixed isomers)	100 lb final RQ 45.4 kg final RQ
n-Hexane	5000 lb final RQ 2270 kg final RQ
Cumene	5000 lb final RQ 2270 kg final RQ
1,2,4 Trimethylbenzene	NA
Ethylbenzene	1000 lb final RQ 454 kg final RQ
Benzene	10 lb final RQ 4.54 kg final RQ
Cyclohexane	1000 lb final RQ 454 kg final RQ
Octane	NA
1,2,3-trimethylbenzene	NA
Naphthalene	100 lb final RQ 45.4 kg final RQ

**SARA:** The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Chronic Health Hazard
- Fire Hazard

**SARA Section 313:** This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
Gasoline	None
Heptane (mixed isomers)	None
Pentane (mixed isomers)	None
Butane (mixed isomers)	None
Hexane Isomers (other than n-Hexane)	None
Toluene	1.0 % de minimis concentration
Xylene (mixed isomers)	1.0 % de minimis concentration
n-Hexane	1.0 % de minimis concentration
Cumene	1.0 % de minimis concentration

1,2,4 Trimethylbenzene	1.0 % de minimis concentration
Ethylbenzene	0.1 % de minimis concentration
Benzene	0.1 % de minimis concentration
Cyclohexane	1.0 % de minimis concentration
Octane	None
1,2,3-trimethylbenzene	None
Naphthalene	0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Gasoline**

- Louisiana Right-To-Know: Not Listed
- California Proposition 65: Not Listed
- New Jersey Right-To-Know: SN 0957
- Pennsylvania Right-To-Know: Present
- Massachusetts Right-To Know: Present
- Florida Substance List: Not Listed
- Rhode Island Right-To-Know: Not Listed
- Michigan Critical Materials Register List: Not Listed
- Massachusetts Extraordinarily Hazardous Substances: Not Listed
- California - Regulated Carcinogens: Not Listed
- Pennsylvania RTK - Special Hazardous Substances: Not Listed
- New Jersey - Special Hazardous Substances: Carcinogen; Flammable - third degree
- New Jersey - Environmental Hazardous Substances List: SN 0957 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories)
- Illinois - Toxic Air Contaminants: Present
- New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed

**Heptane (mixed isomers)**

- Louisiana Right-To-Know: Not Listed
- California Proposition 65: Not Listed
- New Jersey Right-To-Know: SN 1339
- Pennsylvania Right-To-Know: Present
- Massachusetts Right-To Know: Present
- Florida Substance List: Not Listed
- Rhode Island Right-To-Know: Toxic; Flammable
- Michigan Critical Materials Register List: Not Listed
- Massachusetts Extraordinarily Hazardous Substances: Not Listed
- California - Regulated Carcinogens: Not Listed
- Pennsylvania RTK - Special Hazardous Substances: Not Listed
- New Jersey - Special Hazardous Substances: Flammable - third degree
- New Jersey - Environmental Hazardous Substances List: Not Listed
- Illinois - Toxic Air Contaminants: Not Listed
- New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed

**Pentane (mixed isomers)**

- Louisiana Right-To-Know: Not Listed
- California Proposition 65: Not Listed
- New Jersey Right-To-Know: SN 1064
- Pennsylvania Right-To-Know: Present
- Massachusetts Right-To Know: Present
- Florida Substance List: Not Listed
- Rhode Island Right-To-Know: Not Listed
- Michigan Critical Materials Register List: Not Listed
- Massachusetts Extraordinarily Hazardous Substances: Not Listed

California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - fourth degree
New Jersey - Environmental Hazardous Substances List:	SN 1064 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Butane (mixed isomers)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 0273
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - fourth degree
New Jersey - Environmental Hazardous Substances List:	SN 0273 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Hexane Isomers (other than n-Hexane)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 1285
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Toluene	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Developmental toxicity, initial date 1/1/91 Female reproductive toxicity, initial date 8/7/09
New Jersey Right-To-Know:	SN 1866
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan Critical Materials Register List:	100 lb Annual usage threshold
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed

New Jersey - Special Hazardous Substances:	Flammable - third degree; Teratogen
New Jersey - Environmental Hazardous Substances List:	SN 1866 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
Xylene (mixed isomers)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 2014
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan Critical Materials Register List:	100 lb Annual usage threshold all isomers
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 2014 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
n-Hexane	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 1340
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 1340 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1 lb RQ (air); 1 lb RQ (land/water)
Cumene	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Carcinogen, initial date 4/6/10
New Jersey Right-To-Know:	SN 0542
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 0542 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Present





Cyclohexane	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 0565
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 0565 TPQ: 500 lb
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	1000 lb RQ (air); 1 lb RQ (land/water)
Octane	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 1434
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
1,2,3-trimethylbenzene	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 1929
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Naphthalene	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	SN 1322 SN 3758

Pennsylvania Right-To-Know:	Environmental hazard Present (particulate)
Massachusetts Right-To Know:	Present
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Carcinogen
New Jersey - Environmental Hazardous Substances List:	SN 1322 TPQ: 500 lb (Reportable at the de minimis quantity of >0.1%)
Illinois - Toxic Air Contaminants:	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	100 lb RQ (air); 1 lb RQ (land/water)

**Canada DSL/NDSL Inventory:** This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

**Canadian Regulatory Information:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Gasoline	B2,D2A,D2B	0.1%
Heptane (mixed isomers)	B2,D2B	1%
Pentane (mixed isomers)	B2	1%
Butane (mixed isomers)	A,B1	1%
Hexane Isomers (other than n-Hexane)	B2	1%
Toluene	B2,D2A,D2B	0.1%
Xylene (mixed isomers)	B2,D2A,D2B	m-, o-isomers 1.0%; p-isomer 0.1%
n-Hexane	B2,D2A,D2B	1%
Cumene	B2,D2A	0.1%
1,2,4 Trimethylbenzene	B3,D2B	1%
Ethylbenzene	B2,D2A,D2B	0.1%
Benzene	B2,D2A,D2B	0.1%
Cyclohexane	B2,D2B	1%
Octane	B2,D2B	1%
1,2,3-trimethylbenzene	B3	1%
Naphthalene	B4,D2A	0.1%



**Note:** Not applicable.

## 16. OTHER INFORMATION

**Prepared By** Toxicology and Product Safety

**Revision Date:** 06/01/2016

**Revision Note:**

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**Revised Sections**

The following sections (§) have been updated:

1. IDENTIFICATION
2. HAZARD IDENTIFICATION
3. COMPOSITION/INFORMATION ON INGREDIENTS
4. FIRST AID MEASURES
6. ACCIDENTAL RELEASE MEASURES
7. HANDLING AND STORAGE
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
9. PHYSICAL AND CHEMICAL PROPERTIES
11. TOXICOLOGICAL INFORMATION
12. ECOLOGICAL INFORMATION
15. REGULATORY INFORMATION

**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 is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not 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.



24-HOUR EMERGENCY TELEPHONE

SPRAGUE: 603-431-1000

CHEMTREC: 800-424-9300

## SDS – SAFETY DATA SHEET

### 1. Identification

**Product Identifier:** ETHANOL GASOLINE (Reformatted ~ Conventional)

**Synonyms:** 93 OCTANE PREMIUM, 89 OCTANE MID-GRADE, 87 OCTANE REGULAR UNLEADED GASOLINE, REFORMULATED (RFG) GAS, CONVENTIONAL GASOLINE

**Chemical Formula:** Not applicable to mixtures

**Recommended Use of the Chemical and Restrictions On Use:** Blended Motor Fuel

**Manufacturer / Supplier:** Sprague Operating Resources LLC

**Phone:** 603-431-1000

185 International Drive, Portsmouth, NH 03801

**Emergency Phone Number:** SPRAGUE: 603-431-1000; CHEMTREC: 800-424-9300

### 2. Hazard(s) Identification

**Classification of the Substance or Mixture:**

Flammable Liquids - Category 1

Acute Toxicity, Inhalation - Category 4

Skin Irritation – Category 2

Eye Irritation – Category 2B

Carcinogenicity - Category 2

Specific Target Organ Toxicity (Single Exposure) – Category 3

Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Aspiration Hazard – Category 1

Reproductive Toxicity – Category 2

Chronic Aquatic Toxicity – Category 2

**Risk Phrases:**

R20: Harmful by inhalation.

R35: Irritating to eyes.

R38: Irritating to skin.

R45: May cause cancer.

R51 / 53: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R62: Possible risk of impaired fertility.

R63: Possible risk of harm to the unborn child.

R65: Harmful: may cause lung damage if swallowed.

R67: Vapors may cause drowsiness and dizziness.

**Label Elements:**

**Trade Name:** GASOLINE

**Signal Word:** Danger



**Hazard Statements:**

H224: Extremely flammable liquid and vapor.  
 H304: May be fatal if swallowed and enters airways.  
 H315: Causes skin irritation.  
 H320: Causes eye irritation.  
 H332: Harmful if inhaled.  
 H336: May cause drowsiness or dizziness.  
 H350: May cause cancer.  
 H361: Suspected of damaging fertility or the unborn child.  
 H371: May cause damage to organs.  
 H373: May cause damage to organs through prolonged or repeated exposure.  
 H411: Toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 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 equipment.  
 P242: Use only non-sparking tools.  
 P243: Take precautionary measures against static discharge.  
 P260: Do not breathe dust / fume / gas / mist / vapors / spray.  
 P261: Avoid breathing dust / fume / gas / mist / vapors / spray.  
 P264: Wash hands thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P271: Use only outdoors or in a well-ventilated area.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves / protective clothing / eye protection / face protection.  
 P281: Use personal protective equipment as required.  
 P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.  
 P303 + 361 + 353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
 P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P308 + 313: IF exposed or concerned: Get medical advice / attention.  
 P312: Call a POISON CENTER or doctor / physician if you feel unwell.  
 P314: Get medical advice / attention if you feel unwell.  
 P331: Do not induce vomiting.  
 P332 + 313: If skin irritation occurs: Get medical advice / attention.  
 P362: Take off contaminated clothing and wash before reuse.  
 P391: Collect spillage.  
 P403: Store in a well ventilated place.  
 P405: Store locked up.  
 P501: Dispose of contents / container to an approved waste disposal plant.

**3. Composition / Information on Ingredients**

CAS Number: 8006-61-9

EC Number: 232-349-1

Index Number: 649-261-00-8

Molecular Weight: Not applicable to mixtures

Ingredient	CAS Number	Percent	Hazardous	Chemical Characterization
Light Petroleum Distillate	8006-61-9	0 - < 99.9	Yes	Substance
Benzene	71-43-2	0 - 2	Yes	Substance
Cumene	98-82-8	0 - < 1	Yes	Substance
Ethyl Benzene	100-41-4	0 - < 5	Yes	Substance
Toluene	108-88-3	0 - 30	Yes	Substance
Xylene	1330-20-7	0 - 25	Yes	Substance

Naphthalene	91-20-3	0 - 5	Yes	Substance
Cyclohexane	110-82-7	0 - 9	Yes	Substance
O Hexane (all isomers)	NA	0 - 1	Yes	Substance
1,2,4 Trimethyl Benzene	95-63-6	0 - 5	Yes	Substance
Butane	106-97-8	0 - 9	Yes	Substance
Ethyl Alcohol (Ethanol)	64-17-5	0 - 10	Yes	Substance

#### 4. First-aid Measures

**Inhalation:** Remove from vapor to fresh air. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen, if available. Keep affected person warm and at rest. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

**Ingestion:** DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. When vomiting occurs, keep person's head lower than hips to prevent pulmonary aspiration. Get medical attention immediately. If less than ½ pint (liter) ingested, immediately give 1-2 glasses of water and call a physician. Ingestion in small quantities is not expected to be a problem.

**Skin Contact:** Remove fuel soaked clothing and launder before reuse. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 - 20 minutes.) If irritation develops, seek medical aid.

**Eye Contact:** Check for and remove any contact lenses. Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

#### 5. Fire-fighting Measures

**Fire:** Extremely Flammable Liquid and Vapor!

**Explosion:** When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Vapor explosion hazard indoors, outdoors, or in sewers.

**Fire Extinguishing Media:** Foam, Carbon Dioxide, Dry Chemical, and Water Fog.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Cool exposed containers with water spray.

Evacuate area. For large spills, fire-fighting foam is the preferred agent and should be applied in sufficient quantities to blanket the gasoline surface. Water spray may be used to flush spill away from exposures, but good judgment should be practiced to prevent spreading of the gasoline into sewers, streams or drinking water supplies. If a leak or spill has not ignited, apply a foam blanket to suppress the release of vapors. If foam is not available, a water spray curtain can be used to disperse vapors and to protect personnel attempting to stop the leak. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back.

#### 6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**Environmental Precautions and Methods and Materials for Containment and Cleaning Up:** Keep out of sewers, drainage areas and waterways. Run-off may create a fire and explosion hazard in storm drains and sewer systems. If properly trained, proceed with the following measures:

1. For small spills, take up with sand or other absorbent material and place into containers for later disposal.
  2. For large spills, dike far ahead of spill to prevent entrance into watercourses and/or ground water.
- Observe local, state, and federal governmental regulations.

## 7. Handling and Storage

### Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:

Never siphon gasoline by mouth.  
Gasoline should not be used as a solvent or cleaning agent.  
Avoid contact with skin. Avoid inhalation of vapors or mists.

Protect against physical damage and excessive temperatures. Store away from all ignition sources in cool area equipped with automatic sprinkling system. Outside or detached storage preferred. Store in a well-ventilated location, away from any area where the fire hazard may be acute that complies with NFPA 30 "Flammable and Combustible Liquid Code." Separate from incompatibles, including strong oxidizers.

Drums and storage containers should be bonded and grounded for transfers to avoid static sparks. Drums and storage containers should be equipped with self-closing valves, pressure vacuum bungs and flame arresters. Storage and use areas should be No Smoking areas. Use non-sparking type tools and explosion proof equipment. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

Portable containers approved for storing fuel must be placed on the ground and the nozzle must stay in contact with the container when filling to prevent build-up and discharge of static electricity.

The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this product is loaded into tanks previously containing low flash point products (such as gasoline) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

## 8. Exposure Controls / Personal Protection

### Airborne Exposure Limits:

Ingredient	CAS Number	OSHA PEL	ACGIH TLV
Light Petroleum Distillate	8006-61-9	300 mg/m <sup>3</sup>	300 mg/m <sup>3</sup>
Benzene	71-43-2	1 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Cumene	98-82-8	50 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>
Ethyl Benzene	100-41-4	100 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>
Toluene	108-88-3	100 mg/m <sup>3</sup> TWA / 150 mg/m <sup>3</sup> STEL	50 mg/m <sup>3</sup>
Xylene	1330-20-7	100 mg/m <sup>3</sup> TWA / 150 mg/m <sup>3</sup> STEL	100 mg/m <sup>3</sup>
Naphthalene	91-20-3	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Cyclohexane	110-82-7	300 mg/m <sup>3</sup>	300 mg/m <sup>3</sup>
O Hexane (all isomers)	NA	500 mg/m <sup>3</sup>	500 mg/m <sup>3</sup>
1,2,4 Trimethyl Benzene	95-63-6	25 mg/m <sup>3</sup>	25 mg/m <sup>3</sup>
Butane	106-97-8	800 ppm TWA	800 ppm TWA
Ethyl Alcohol (Ethanol)	64-17-5	100 ppm STEL	N/A

**Ventilation System:** A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details. Use explosion-proof equipment.

**Personal Respirators (NIOSH Approved):** If the exposure limit is exceeded and engineering controls are not feasible, use of a NIOSH-approved respirator is required. Per 29 CFR 1910.134 or 29 CFR 1028, use either a positive pressure supplied air respirator or an air-purifying respirator for organic vapors.



**Skin Protection:** Gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure - Neoprene, PVC.

**Eye Protection:** Use chemical safety goggles and / or a full face shield where splashing is possible.

**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.

## 9. Physical and Chemical Properties

**Appearance:** Colorless liquid

**Odor:** Gasoline odor

**Odor Threshold:** < 1 ppm (Reference Value)

**pH:** No information found

**% Volatiles by volume @ 21C (70F):** 100

**Melting Point:** Not determined

**Boiling Point / Boiling Range:** 100 - 430F (38 - 221C)

**Flash Point:** -40F (-40C) (Reference Value)

**Evaporation Rate (BuAC=1):** Rapid; varies with conditions

**Flammability:** Extremely Flammable Liquid and Vapor!

**Upper / Lower Flammability or Explosive Limits:** Upper – 7.6 / Lower – 1.4 (Reference Value)

**Vapor Pressure (mm Hg):** 325 - 525 (mmHg @ 20C)

**Vapor Density (Air=1):** Less than 4

**Relative Density:** Not determined

**Solubility:** Slight

**Partition Coefficient: n-octanol / water:** > Not determined

**Auto-ignition Temperature:** > 536F (280C) (Reference Value)

**Decomposition Temperature:** Not determined

**Viscosity:** Low viscosity material

## 10. Stability and Reactivity

**Reactivity and / or Chemical Stability:** Stable under ordinary conditions of use and storage at normal temperatures and pressures.

**Possibility of Hazardous Reactions and Conditions to Avoid:** Heat, flames, ignition sources and incompatibles. Avoid build-up of static electricity.

**Incompatible Materials:** May explode or react violently when exposed to oxidizing materials. Avoid halogens, strong acids, and alkalis.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, and hydrocarbons.

## 11. Toxicological Information

### Potential Health Effects:

**Inhalation:** Central nervous system depressant. May cause headaches and irritation to the nose, throat, and lungs.

**Ingestion:** May cause irritation and burning of the gastrointestinal tract (mouth, throat, and stomach). May cause nausea, vomiting, diarrhea, and restlessness.

**Skin Contact:** May cause irritation, drying, and cracking of the skin. May cause dermatitis.

**Eye Contact:** Irritation of the eye.

**Chronic Exposure:**

**Inhalation:** Chronic exposure to the component benzene may result in adverse effects of the blood including anemia, decreased white blood cell count, decreased platelets, aplastic anemia and leukemia. In addition, chronic inhalation of vapors of the component benzene may cause fatigue, nervousness, irritability, blurred vision and labored breathing. Chronic inhalation of the n-hexane vapors, a component of this material, may result in severe degeneration of the peripheral nervous system. Epidemiological studies have reported anxiety and asthmatic bronchitis among workers chronically exposed to isomers of trimethylbenzene.

**Ingestion:** Chronic effects of ingestion and subsequent aspiration of this product into the lungs may include pneumatocele (lung cavity) formation and chronic lung dysfunction.

**Skin Contact:** Prolonged and repeated contact with the skin may cause redness, blistering, dryness, lesions and/or scaly dermatitis.

**Eye Contact:** Symptoms of chronic exposure resemble those of acute exposure.

**Additional Toxicological Information:** Studies conducted by the American Petroleum Institute examined a reference unleaded gasoline for mutagenic, teratogenic and sensitization potential; no evidence of these hazards was found. However, isolated constituents of gasoline may display these or other potential hazards in laboratory tests. There were no significant adverse effects in three-month subchronic inhalation studies in rats or monkeys, or in a two-year skin cancer study in mice. Studies with laboratory concentrations over a prolonged period of time caused kidney damage and kidney cancer in male rats and liver cancer in female mice. There was no evidence of significant adverse systemic or reproductive effects for light catalytic cracked naphthas and reformed naphthas. Components: Gasoline consists of a complex blend of petroleum/processing derived paraffinic, olefinic, naphthenic and aromatic hydrocarbons which include up to 5% benzene (with 1-2% typical in the U.S.), n-hexane, mixed xylenes, toluene, ethylbenzene and trimethyl benzene. Repeated exposures to low levels of benzene have been reported to result in blood abnormalities including anemia and, in rare cases, leukemia in both animals and humans. Prolonged exposure to n-hexane may result in nervous system damage, including numbness of the extremities and, in extreme cases, paralysis. The adverse effects associated with these components have not been observed in studies with gasoline or the refinery streams from which it is formulated.

**Carcinogenicity:** The International Agency for Research on Cancer (IARC) has determined that gasoline is possibly carcinogenic to humans (2B.) Inhalation exposure to completely vaporized unleaded gasoline caused kidney cancers in male rats and liver tumors in female mice. The U.S. EPA has determined that the male kidney tumors are species-specific and are irrelevant for human health risk assessment. The significance of the tumors seen in female mice is not known. This product may contain benzene. The NTP, ARC, OSHA and ACGIH list benzene as a human carcinogen. This product may contain methyl-tert-butyl ether (MTBE.) MTBE is classified as an animal carcinogen (A3) by the ACGIH.

**Reproductive Toxicity:** Studies conducted by the American Petroleum Institute examined a reference unleaded gasoline and found that there was no evidence of significant adverse systemic or reproductive effects for light catalytic cracked naphthas and reformed naphthas. This product may contain toluene: A number of case reports indicate that toluene is a developmental toxicant. Developmental toxic effects comparable to those observed in humans have been seen in lab animals but the effects were generally associated with maternal toxicity. This product may contain ethyl benzene for which birth defects were noted in rats, but not rabbits, at doses which caused toxic effects in the mothers. This product may contain benzene. Animal studies on benzene demonstrated immunotoxicity, testicular effects, and alterations in reproductive cycles, evidence of chromosomal damage or other chromosomal changes, and embryo / fetotoxicity but not teratogenicity.

**Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:)** No data available.

**Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:)** No data available.

**Aspiration Respiratory Organs Hazard:** Low viscosity material. Aspiration can cause serious or fatal lung damage.

**Acute Toxicity:**

Oral Rat LD50: > 5000 mg/kg bodyweight (ARCO, 1986b) / Inhalation Rat LC50: > 5.2 mg/l (ARCO, 1992)

Dermal Rabbit LD50: > 2000 mg/kg bodyweight (ARCO, 1986a)

## 12. Ecological Information

**Ecotoxicity:** Harmful to aquatic life in very low concentrations.  
8 ppm (Bluegill) - 96 h; 1.5 ppm (Grass Shrimp) - 96 h

**Persistence and Degradability:** Based on compositional information available and measured or predicted data on key constituents, gasoline and gasoline naphthas are not expected to meet the criteria for ready degradability but are inherently biodegradable. Ground water may be contaminated. Although gasoline is biodegradable, it may persist for prolonged time periods, particularly where oxygen levels are reduced. The hydrocarbon components of gasoline are slightly soluble in water.

**Bioaccumulative Potential:** Constituents of gasoline naphthas are considered potentially bioaccumulative.

**Mobility in Soil:** Spilled gasoline can result in environmental damage when it absorbs and penetrates the soil.

**Other adverse effects:** Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

## 13. Disposal Considerations

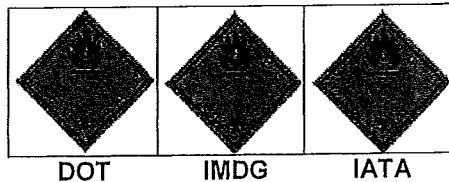
Under EPA RCRA (40 CFR 261.21):

1. If this product becomes a waste material intended for disposal and has a flash point below 140 F, it would be ignitable hazardous waste (waste code number D001.)
2. If this product becomes a waste material intended for disposal and has a TCLP benzene concentration greater than 0.5 PPM, it would be considered a toxic waste (waste code number D018.)

Refer to latest EPA or state regulations regarding proper disposal.

## 14. Transport Information

**UN Number:** UN1203  
**UN Proper Shipping Name:** GASOLINE  
**Packing Group:** II



**Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)**

**Transport Hazard Class(es):** 3

**Maritime Transport IMDG/GGVSea**

**Transport Hazard Class(es):** 3

**Marine Pollutant:** Yes

**Air Transport ICAO-TI and IATA-DGR**

**Transport Hazard Class(es):** 3

**Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code:)** Not Applicable

**Special Precautions for User:**

CONTAINS GASOLINE DANGER! FOR INDUSTRIAL USE ONLY!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY CAUSE EYE, SKIN, NOSE, THROAT AND LUNG IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS. LOW VISCOSITY MATERIAL - IF SWALLOWED MAY BE ASPIRATED AND CAN CAUSE SERIOUS OR FATAL LUNG DAMAGE.

LONG-TERM EXPOSURE TO GASOLINE VAPOR HAS CAUSED KIDNEY AND LIVER CANCER IN LABORATORY ANIMALS.

Keep away from heat, sparks, and flame. Avoid all personal contact. Avoid prolonged breathing of vapor. Keep container closed. Use with adequate ventilation. Misuse of gasoline may cause serious injury or illness. For use as a motor fuel only. Not to be used as a solvent or skin cleaning agent. Never siphon by mouth.

FIRST AID: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician immediately. In case of contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Call a physician if symptoms occur. Wash clothing before reuse. If swallowed, seek immediate medical attention. Do not induce vomiting. Only induce vomiting at the instruction of a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

## 15. Regulatory Information

### Chemical Inventory Status

All components, except butane (106-97-8) are listed in TSCA.  
All components are listed in EC and Canada DSL.

### Federal, State & International Regulations

Ingredient	SARA 302		SARA 313		CERCLA	RCRA
	RQ	TPQ	List Chemical	Catg.		
Light Petroleum Distillate (8006-61-9)	No	No	Yes	Yes	No *	No
Benzene(71-43-2)	No	No	Yes	Yes	1 *	U247
Cumene (98-82-8)	No	No	Yes	Yes	5000 *	U055
Ethyl Benzene (100-41-4)	No	No	Yes	No	1000 *	No
Toluene (108-88-3)	No	No	Yes	Yes	1000 *	U220
Xylene (1330-20-7)	No	No	Yes	Yes	100 *	U239
Naphthalene (91-20-3)	No	No	Yes	Yes	100 *	U165
Cyclohexane (110-82-7)	No	No	Yes	Yes	1000 *	U056
1,2,4 Trimethyl Benzene (95-63-6)	No	No	Yes	No	No	No
Butane (106-97-8)	No	No	No	No	10,000 *	No
Ethyl Alcohol (64-17-5)	No	No	No	No	No	No

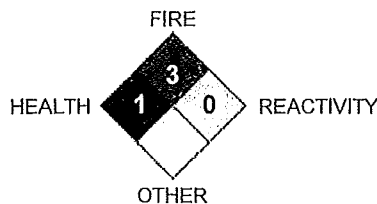
\* CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIROMENT) The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting including SARA Section 304, as well as the Clean Water Act may still apply.

SARA 311/312	Acute: Yes	Chronic: Yes	Fire: Yes	Pressure: No	Reactivity: No
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## 16. Other Information

### HMIS / NFPA Hazard Rating:

- 4=EXTREME
- 3= SERIOUS
- 2= MODERATE
- 1=SLIGHT
- 0=MINIMAL



*Effective Date:* 11/01/13 – Modified aspiration instructions

*Previous Revisions:*

05/01/13 – Standardized for GHS and REACH

01/19/2004, 06/05

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his / her own determination of the suitability of the material for his / her particular purposes.



HOUGHTON

# SAFETY DATA SHEET

Issuing Date: 05-06-2015

Revision Date: 05-06-2015

Version 1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1.

#### Product identifier

Product Code(s): 01621100-M  
 Product Name HOUGHTO-SAFE 620 E  
 Product Registration number  
 Denmark -  
 Norway -  
 Sweden -  
 EC #  
 Pure substance/preparation Contains Ethane-1,2-diol

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Fire-resistant hydraulic fluid  
 Uses advised against Any other purpose.

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer, Importer, Supplier

Houghton plc  
 Beacon Road  
 Trafford Park  
 Manchester  
 M17 1AF  
 Tel: +44 (0)161 874 5000  
 E-mail: MSDS@uk.houghtonglobal.com

Houghton S.A.S.  
 604 Bd Albert Camus,  
 BP 60041  
 69652 Villefranche sur saone  
 France  
 Tel: (0) 4 74 65 65 00  
 Fax: (0) 4 74 60 08 44

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#### 1.4. Emergency telephone number

3E Company: (+)1 760 476 3961 ( Code 333938 )

Austria	Notfall-Telefonnummer +43 (0) 1 406 4343
Bulgaria	Телефон за спешни случаи +359 2 9154 409
Switzerland	145; +41 (0) 44 254 51 51
Czech Republic	Telefonní číslo pro naléhavé situace +420 224 919 293
Denmark	Ring til Giftlinjen på +45 82 12 12 12
Finland	Hätäpuhelinnumero +358 09 471 977
France	Numéro d'appel d'urgence +33 (0)1 45 42 5959
Hungary	Díjmentesen hívható zöld szám +36 80 20 11 99
Ireland	Emergency telephone number +353 01 809 2166
Netherlands	Telefoonnummer voor +31 30 274 88 88
Norway	Nødnummer +47 22 59 13 00
Poland	112
Portugal	Número de telefone de emergência +351 808 250 143
Romania	Număr de telefon care poate fi apelat în caz de urgență +021 318 36 06 (08:00-15:00)
Spain	Número de teléfono de emergencia +34 91 562 0420
Sweden	Telefonnummer för nödsituationer +46 08 33 12 31 (09:00-17:00)
Turkey	(+)1 760 476 3959 ( Code 333938 )

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Toxicity - Oral	Category 4 - (H302)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

### 2.2. Label Elements

Contains Ethane-1,2-diol



Signal Word  
WARNING

**Hazard Statements**

H302 - Harmful if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements - EU (§28, 1272/2008)**

P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician

**2.3. Other hazards**

No information available.

- 0.00072 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0.0018 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 2.1018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 0.5018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 2.1018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**SECTION 3: Composition/information on ingredients**

**3.1. Substances / 3.2. Mixtures**

This product is a mixture. Health hazard information is based on its ingredients

Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)	REACH Registration Number
Ethane-1,2-diol	203-473-3	107-21-1	25% - 50%	Acute Tox. 4 (H302) STOT RE 2 (H373)	01-2119456816-28-xxx x
Glycerol	200-289-5	56-81-5	2.5% - 10%	**	no data available
Neutralised Dibutylamine	203-921-8	111-92-2*	0% - 1%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Flam Liq. 3 (H226)	01-2119475606-30-xxx x
2-Diethylaminoethanol	202-845-2	100-37-8	0% - 1%	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Flam Liq. 3 (H226) STOT SE 3 (H335)	01-2119488937-14-xxx x
Neutralised 2-diethylaminoethanol	202-845-2	100-37-8*	0% - 1%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Flam Liq. 3 (H226)	01-2119488937-14-xxx x

\*\* Substances for which there are Community workplace exposure limits

Full text of H- and EUH-phrases: see section 16



**SECTION 4: First aid measures**

**4.1. Description of first-aid measures**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. When symptoms persist or in all cases of doubt seek medical advice. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Clean mouth with water and afterwards drink plenty of water. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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

**Main Symptoms**                      Gastrointestinal discomfort

**4.3. Indication of immediate medical attention and special treatment needed**

**Notes to physician**                      Treat symptomatically.

**SECTION 5: FIRE FIGHTING MEASURES**

**5.1. Extinguishing media**

**Suitable Extinguishing Media**  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment., Use CO2, dry chemical, or foam, Water spray or fog

**Extinguishing media which shall not be used for safety reasons**  
None

**5.2. Special hazards arising from the substance or mixture**

**Special Hazard**  
Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous Decomposition Products**  
None under normal use

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters**  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.

**Advice for non-emergency personnel** Keep people away from and upwind of spill/leak. Material can create slippery conditions.

**Advice for emergency responders** For personal protection see section 8.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

### 6.4. Reference to other sections

See Section 8/12/13 for additional information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures/Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

#### Recommended Shelf Life

No information available.

#### Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

### 7.3. Specific end uses

**Specific use(s)** Fire-resistant hydraulic fluid

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain
Ethane-1,2-diol	S* TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup>	STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> Skin	VME: 20 ppm VME: 52 mg/m <sup>3</sup> VLCT: 40 ppm VLCT: 104 mg/m <sup>3</sup>	S* STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup>
Glycerol		STEL: 30 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	VME: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
2-Diethylaminoethanol			VME: 10 ppm VME: 50 mg/m <sup>3</sup>	S* TWA: 2 ppm TWA: 9.7 mg/m <sup>3</sup>

Neutralised 2-diethylaminoethanol			VME: 10 ppm VME: 50 mg/m <sup>3</sup>	
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Chemical Name	Germany	Italy	Portugal	The Netherlands
Ethane-1,2-diol	MAK: 10 ppm MAK: 26 mg/m <sup>3</sup> Ceiling / Peak: 20 ppm Ceiling / Peak: 52 mg/m <sup>3</sup> Skin TWA: 10 ppm TWA: 26 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> Skin	Ceiling: 100 mg/m <sup>3</sup>	Skin STEL: 104 mg/m <sup>3</sup> TWA: 52 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
Glycerol	MAK: 50 mg/m <sup>3</sup> Ceiling / Peak: 100 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup>	
Neutralised Dibutylamine	TWA: 5 ppm TWA: 29 mg/m <sup>3</sup>			
2-Diethylaminoethanol	MAK: 5 ppm MAK: 24 mg/m <sup>3</sup> Ceiling / Peak: 5 ppm Ceiling / Peak: 24 mg/m <sup>3</sup> Skin TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>		TWA: 2 ppm	
Neutralised 2-diethylaminoethanol	MAK: 5 ppm MAK: 24 mg/m <sup>3</sup> Ceiling / Peak: 5 ppm Ceiling / Peak: 24 mg/m <sup>3</sup> Skin TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>		TWA: 2 ppm	

Chemical Name	Austria	Switzerland	Poland	Ireland
Ethane-1,2-diol	Skin STEL 20 ppm STEL 52 mg/m <sup>3</sup> MAK: 10 ppm MAK: 26 mg/m <sup>3</sup>	Skin STEL: 20 ppm STEL: 52 mg/m <sup>3</sup> MAK: 10 ppm MAK: 26 mg/m <sup>3</sup>	NDSch: 50 mg/m <sup>3</sup> NDS: 15 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 20 ppm STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> Skin
Glycerol		STEL: 100 mg/m <sup>3</sup> MAK: 50 mg/m <sup>3</sup>	NDS: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Neutralised Dibutylamine	Skin STEL 5 ppm STEL 29 mg/m <sup>3</sup> MAK: 5 ppm MAK: 29 mg/m <sup>3</sup> Ceiling 5 ppm Ceiling 29 mg/m <sup>3</sup>			
2-Diethylaminoethanol	Skin STEL 5 ppm STEL 24 mg/m <sup>3</sup> MAK: 5 ppm MAK: 24 mg/m <sup>3</sup> Ceiling 5 ppm Ceiling 24 mg/m <sup>3</sup>	Skin MAK: 10 ppm MAK: 50 mg/m <sup>3</sup>	NDS: 50 mg/m <sup>3</sup> Skin	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> Skin
Neutralised 2-diethylaminoethanol	Skin STEL 5 ppm STEL 24 mg/m <sup>3</sup> MAK: 5 ppm MAK: 24 mg/m <sup>3</sup> Ceiling 5 ppm Ceiling 24 mg/m <sup>3</sup>	Skin MAK: 10 ppm MAK: 50 mg/m <sup>3</sup>	NDS: 50 mg/m <sup>3</sup> Skin	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> Skin

Chemical Name	Finland	Denmark	Norway	Sweden
Ethane-1,2-diol	TWA: 20 ppm TWA: 50 mg/m <sup>3</sup> STEL: 40 ppm STEL: 100 mg/m <sup>3</sup> Skin	TWA: 10 ppm TWA: 26 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> Skin	Skin Ceiling: 20 ppm 52 mg/m <sup>3</sup> STEL: 40 ppm 104 mg/m <sup>3</sup>	LLV: 10 ppm LLV: 25 mg/m <sup>3</sup> H STV: 20 ppm STV: 50 mg/m <sup>3</sup>
Glycerol	TWA: 20 mg/m <sup>3</sup>			
Neutralised Dibutylamine	STEL: 5 ppm STEL: 27 mg/m <sup>3</sup> Skin			
2-Diethylaminoethanol	STEL: 10 ppm STEL: 49 mg/m <sup>3</sup> Skin	TWA: 2 ppm TWA: 9.6 mg/m <sup>3</sup> Skin	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> Skin STEL: 20 ppm STEL: 75 mg/m <sup>3</sup>	LLV: 2 ppm LLV: 10 mg/m <sup>3</sup> H STV: 10 ppm STV: 50 mg/m <sup>3</sup>
Neutralised 2-diethylaminoethanol	STEL: 10 ppm STEL: 49 mg/m <sup>3</sup> Skin	TWA: 2 ppm TWA: 9.6 mg/m <sup>3</sup> Skin	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> Skin STEL: 20 ppm STEL: 75	LLV: 2 ppm LLV: 10 mg/m <sup>3</sup> H STV: 10 ppm

			mg/m <sup>3</sup>	STV: 50 mg/m <sup>3</sup>
Chemical Name	Czech Republic	Hungary	Bulgaria	Romania
Ethane-1,2-diol	Ceiling: 100 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup> Skin	STEL: 104 mg/m <sup>3</sup> TWA: 52 mg/m <sup>3</sup> Skin	STEL: 104.0 mg/m <sup>3</sup> TWA: 52.0 mg/m <sup>3</sup> Skin	TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> Skin
Glycerol	Ceiling: 15 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>			
Neutralised Dibutylamine				STEL: 1.1 ppm STEL: 6 mg/m <sup>3</sup>
2-Diethylaminoethanol	Ceiling: 100 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup> Skin		TWA: 50.0 mg/m <sup>3</sup> Skin	TWA: 6 ppm TWA: 30 mg/m <sup>3</sup> STEL: 9 ppm STEL: 45 mg/m <sup>3</sup> Skin
Neutralised 2-diethylaminoethanol	Ceiling: 100 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup> Skin		TWA: 50.0 mg/m <sup>3</sup> Skin	TWA: 6 ppm TWA: 30 mg/m <sup>3</sup> STEL: 9 ppm STEL: 45 mg/m <sup>3</sup> Skin

**Workers Systemic toxicity**

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol		106 mg/kg	35 mg/m <sup>3</sup>			
Neutralised Dibutylamine			29 mg/m <sup>3</sup>			29 mg/m <sup>3</sup>
2-Diethylaminoethanol		1 mg/kg	7.34 mg/m <sup>3</sup>			
Neutralised 2-diethylaminoethanol		1 mg/kg	7.34 mg/m <sup>3</sup>			

**Workers Local effects**

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol						35 mg/m <sup>3</sup>
Glycerol			56 mg/m <sup>3</sup>			
Neutralised Dibutylamine			29 mg/m <sup>3</sup>			29 mg/m <sup>3</sup>
2-Diethylaminoethanol			1.07 mg/m <sup>3</sup>			
Neutralised 2-diethylaminoethanol			1.07 mg/m <sup>3</sup>			

**Consumers Systemic toxicity**

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol		53 mg/kg				
Glycerol	229 mg/kg					

**Consumers Local effects**

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol			7 mg/m <sup>3</sup>			
Glycerol			33 mg/m <sup>3</sup>			

**Predicted No Effect Concentration (PNEC)**

Chemical Name	Fresh water	Sea water	Fresh water sediment	Sea sediment	Soil
Ethane-1,2-diol	10 mg/L	1 mg/L	37 mg/kg	3.7 mg/kg	1.53 mg/kg
Glycerol	0.885 mg/L	0.0885 mg/L	3.3 mg/kg	0.33 mg/kg	0.141 mg/kg
Neutralised Dibutylamine	0.084 mg/L	0.0084 mg/L	11.4 mg/kg	1.14 mg/kg	2.23 mg/kg
2-Diethylaminoethanol	0.044 mg/L	0.0044 mg/L	0.475 mg/kg	0.0475 mg/kg	0.069 mg/kg
Neutralised 2-diethylaminoethanol	0.044 mg/L	0.0044 mg/L	0.475 mg/kg	0.0475 mg/kg	0.069 mg/kg

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

#### Eye Protection

Safety glasses with side-shields.

#### Hand Protection

Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

#### Skin and body protection

Long sleeved clothing.

#### Respiratory protection

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

### Hygiene measures

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

### Environmental Exposure Controls

No special environmental precautions required.

### Thermal hazards

None under normal use conditions

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state @20°C  
Odor

liquid  
amine-like

Appearance  
Odor Threshold

clear Red  
Not Applicable

#### Property

#### Values

#### Note

pH

9.8

Melting Point / Freezing Point

<= -45 °C / <= -49 °F

Boiling point/boiling range

No information available.

Flash point

No information available

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.

Relative density

1.09

@15.5°C

Solubility(ies)

Soluble in water

Partition coefficient: n-octanol/water

Not Applicable

Autoignition temperature

No information available

Decomposition temperature

No information available

Viscosity, kinematic

= 38 cSt @ 40 °C

ASTM D 445

Explosive properties

Not Applicable

Oxidizing Properties

Not Applicable

### 9.2 Other information

Viscosity, kinematic (100°C)	No information available
Pour point	No information available
VOC Content	No information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

None under normal use conditions.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

None under normal use conditions

**10.4. Conditions to avoid**

Do not freeze

**10.5. Incompatible Materials**

Strong oxidizing agents, Strong acids, Strong bases

**10.6. Hazardous decomposition products**

None under normal use conditions

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Product Information - Principle Routes of Exposure**

Inhalation	None known
Eye contact	None known
Skin contact	None known
Ingestion	Harmful if swallowed; Ingestion constitutes the main danger because of the toxicity of ethylene glycol; May cause adverse liver effects; May cause adverse kidney effects

**Acute toxicity - Product Information**

Harmful if swallowed.

**Acute toxicity - Component Information**

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Ethane-1,2-diol	4000 mg/kg ( Rat )	= 9530 µL/kg ( Rabbit )	
Glycerol	12600 mg/kg ( Rat )	> 21900 mg/kg ( Rat )	
Neutralised Dibutylamine	550 mg/kg ( Rat )	= 768 mg/kg ( Rabbit )	
2-Diethylaminoethanol	1320 mg/kg ( Rat )	1100 mg/kg ( Rabbit )	
Neutralised 2-diethylaminoethanol	1320 mg/kg ( Rat )	1100 mg/kg ( Rabbit )	

Skin corrosion/irritation	None known.
Serious eye damage/eye irritation	None known.
Sensitization	
Respiratory Sensitization	None known.
Skin sensitization	None known.
Germ Cell Mutagenicity	None known.
Carcinogenicity	None known.
Reproductive toxicity	None known.
Specific target organ systemic toxicity (single exposure)	None known
Specific target organ systemic toxicity (repeated exposure)	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

No special environmental measures are necessary.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Ethane-1,2-diol	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14-18: 96 h Oncorhynchus mykiss ml/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000-60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static		46300: 48 h Daphnia magna mg/L EC50
Glycerol		54000: 96 h Oncorhynchus mykiss ml/L LC50		>10000: 24 h Daphnia Magna mg/L EC50
Neutralised Dibutylamine	16.9: 72 h Scenedesmus subspicatus mg/L EC50	5.5: 96 h Oncorhynchus mykiss mg/L LC50		65.98: 48 h Daphnia magna mg/L EC50 8.4: 48 h Ceriodaphnia dubia mg/L EC50
2-Diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50 static		83.6: 48 h Daphnia magna Straus mg/L EC50
Neutralised 2-diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50 static		83.6: 48 h Daphnia magna Straus mg/L EC50

### 12.2. Persistence and degradability

No information available.

**12.3. Bioaccumulative potential**

No information available

Chemical Name	log Pow
Ethane-1,2-diol	-1.93
Glycerol	-1.76
Neutralised Dibutylamine	2.06
2-Diethylaminoethanol	0.21
Neutralised 2-diethylaminoethanol	0.21

**12.4. Mobility in soil**

Miscible with water

**12.5. Results of PBT and vPvB assessment**

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**12.6. Other adverse effects**

None known

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

<b>Waste from Residues / Unused Products</b>	Dispose of as hazardous waste in compliance with local and national regulations
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Observe all label precautions until container is cleaned, reconditioned or destroyed.
<b>Other Data</b>	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information****14.1. UN-Number**

Not regulated

**14.2. UN proper shipping name**

Not regulated

**14.3. Transport hazard class**

Not regulated

**14.4. Packing group**

Not regulated

**14.5. Environmental Hazards**

None.



**14.6. Special precautions for users**

None.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**IMDG/IMO** Not regulated**ADR/RID** Not regulated**ICAO/IATA** Not regulated**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)  
 Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

Statutory Instruments: Control of Substances Hazardous to Health Regulations 2002. Chemicals (Hazard Information and Packaging) Regulations 2009.

Acts of Parliament: The Health and Safety at Work etc. Act 1974. Environment Protection Act 1990.

Regulation on classification, labeling, of hazardous chemicals (2002 changing 2005). Appendix VI to Regulation on classification, labeling etc. of hazardous chemicals (2002 changing 2010), list of hazardous substances (as amended). Guidelines for submission and declaration of hazardous waste (2009). Transport of dangerous goods: ADR, RID, IMDG and IATA. Administrative norms for pollution of the atmosphere, 2009.

Workplace exposure limits (EH40)

**WGK Classification**

Low hazard to water/Class 1

**15.2. Chemical Safety Assessment**

No information available.

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet**

Repr.-Reproduction toxicity

Asp. Tox. - Aspiration Toxicity

Acute Tox. - Acute Toxicity

Aquatic Acute - Acute Aquatic Toxicity

Aquatic Chronic - Chronic Aquatic Toxicity

Eye Dam. - Eye Damage

Eye Irrit. - Eye Irritation

Skin Corr. - Skin Corrosion

Skin Irrit. - Skin Irritation

Skin Sens. - Skin Sensitizer

Resp. Sens. - Respiratory Sensitizer

STOT SE - Specific target organ systemic toxicity (Single exposure)

STOT RE - Specific target organ systemic toxicity (repeated exposure)

VOC - Volatile organic compounds

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

<ul style="list-style-type: none"> <li>• H224 - Extremely flammable liquid and vapor</li> <li>• H225 - Highly flammable liquid and vapor</li> <li>• H226 - Flammable liquid and vapor</li> <li>• H270 - May cause or intensify fire; oxidizer</li> <li>• H271 - May cause fire or explosion; strong oxidizer</li> <li>• H272 - May intensify fire; oxidizer</li> <li>• H290 - May be corrosive to metals</li> <li>• H300 - Fatal if swallowed</li> <li>• H301 - Toxic if swallowed</li> <li>• H302 - Harmful if swallowed</li> <li>• H304 - May be fatal if swallowed and enters airways</li> <li>• H310 - Fatal in contact with skin</li> <li>• H311 - Toxic in contact with skin</li> <li>• H312 - Harmful in contact with skin</li> <li>• H314 - Causes severe skin burns and eye damage</li> <li>• H315 - Causes skin irritation</li> <li>• H317 - May cause an allergic skin reaction</li> <li>• H318 - Causes serious eye damage</li> <li>• H319 - Causes serious eye irritation</li> <li>• H330 - Fatal if inhaled</li> <li>• H331 - Toxic if inhaled</li> <li>• H332 - Harmful if inhaled</li> <li>• H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled</li> <li>• H335 - May cause respiratory irritation</li> <li>• H336 - May cause drowsiness or dizziness</li> <li>• H340 - May cause genetic defects</li> </ul>	<ul style="list-style-type: none"> <li>• H341 - Suspected of causing genetic defects</li> <li>• H350 - May cause cancer</li> <li>• H351 - Suspected of causing cancer</li> <li>• H360 - May damage fertility or the unborn child</li> <li>• H361 - Suspected of damaging fertility or the unborn child</li> <li>• H362 - May cause harm to breast-fed children</li> <li>• H370 - Causes damage to organs</li> <li>• H371 - May cause damage to organs</li> <li>• H372 - Causes damage to organs through prolonged or repeated exposure</li> <li>• H373 - May cause damage to organs through prolonged or repeated exposure</li> <li>• H400 - Very toxic to aquatic life</li> <li>• H410 - Very toxic to aquatic life with long lasting effects</li> <li>• H411 - Toxic to aquatic life with long lasting effects</li> <li>• H412 - Harmful to aquatic life with long lasting effects</li> <li>• H413 - May cause long lasting harmful effects to aquatic life.</li> <li>• H360Df - May damage the unborn child. Suspected of damaging fertility</li> <li>• H360D - May damage the unborn child</li> <li>• H360FD - May damage fertility. May damage the unborn child</li> <li>• H360F - May damage fertility</li> <li>• H361d - Suspected of damaging the unborn child</li> <li>• H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child</li> <li>• H361f - Suspected of damaging fertility</li> <li>• EUH066 - Repeated exposure may cause skin dryness or cracking</li> <li>• EUH210 - Safety data sheet available on request.</li> <li>• EUH208 - May produce an allergic reaction</li> </ul>
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**Exposure scenario**

No information available.

Issuing Date: 05-06-2015

Revision Date: 05-06-2015

**Revision Note****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.

**SECTION 1 – PRODUCT INFORMATION**

Product Name: Propane  
 Trade Name: LPG (Liquefied Petroleum Gas), LP-Gas  
 Chemical Formula: C<sub>3</sub>H<sub>8</sub>  
 WHMIS Classification: Class A – Compressed Gas  
 Class B, Division 1 – Flammable G  
 Supplier: Superior Propane  
 A Division of Superior Plus LP  
 1111 - 49th Avenue N.E.  
 Calgary, AB T2E 8V2  
 Business: (403) 730-7500  
 24-Hour  
 Emergency Contact: Canutec (613) 996-6666  
 Application and Use: Propane is commonly used as a fuel for heating, cooking, automobiles, forklift trucks, crop drying and welding and cutting operations. Propane is used in industry as a refrigerant, solvent and as a chemical feedstock.

**SECTION 2 – HAZARDOUS INGREDIENTS**

Component	CAS#	% (w/w) (typical)	Health Hazard
Propane	74-98-6	90% - 99%	Not Applicable
Propylene	115-07-1	0% - 5%	Not Applicable
Ethane	74-84-0	0% - 5%	Not Applicable
Butane and heavier hydro carbons	106-97-8	0% - 2.5%	Not Applicable

Occupational Exposure Limit:  
 Based upon animal test data, the acute toxicity of this product is expected to be Inhalation: 4 hour LC50 = 280,000 ppm (Rat)  
 Note: Composition is typical for HD-5 Propane per The Canadian General Standard Board CGSB 3.14 National Standard of Canada. Exact composition will vary from shipment to shipment.

**SECTION 3 – CHEMICAL AND PHYSICAL DATA**

Form: Liquid and vapour while stored under pressure  
 Boiling Point: -42°C @ 1 atm  
 Freezing Point: -188°C  
 Evaporation Rate: Rapid (Gas at normal ambient conditions)  
 Vapour Pressure: 1435 kPa (maximum) @ 37.8°C  
 Vapour Density: 1.52 (Air = 1)  
 pH: Not available  
 Solubility in Water: Slight, 6.1% by volume @ 17.8°C  
 Specific Gravity: 0.51 (water = 1)  
 Appearance/Odour: Colourless liquid and vapour while stored under pressure. Colourless and odourless gas in natural state at any concentration. Commercial propane has an odourant added, ethyl mercaptan, which has an odour similar to boiling cabbage.  
 Coefficient of Water/Oil Distribution: Not available  
 Odour Threshold: 4800 ppm  
 With proper handling, transportation and storage, adding a chemical odourant such as ethyl mercaptan has proven to be a very effective warning device, but all odourants have certain limitations. The effectiveness of the odourant may be diminished by a person's sense of smell, by competing odours and by oxidation which may cause a potentially dangerous situation.

**SECTION 4 – FIRE OR EXPLOSION HAZARD**

Flash Point: -103.4°C  
 Method: Closed cup  
 Flammable Limits: Lower 2.4%, Upper 9.5%  
 Auto Ignition Temperature: 432°C  
 Hazardous Combustion Products: Carbon monoxide can be produced when primary air and secondary air are deficient while combustion is taking place.  
 Fire and Explosive Hazards: Explosive air - vapour allowed to leak to atmosphere.  
 Sensitivity to Impact: No  
 Sensitivity to Static Discharge: Yes  
 Fire Extinguishing Precautions: Use water spray to cool exposed cylinders or tanks. Do not extinguish fire unless the source of the escaping gas that is fueling the fire can be turned off. Fire can be extinguished with carbon dioxide and/or dry chemical (BC). Container metal shells require cooling with water to prevent impingement and the weakening of metal. If sufficient water is not available to protect the container shell from weakening, the area will be required to be evacuated. If gas has not ignited, liquid or vapour may be dispersed by water spray or flooding.  
 Special Fire Fighting Equipment: Protective clothing, hose monitors, fog nozzles, self-contained breathing apparatus material, drains and openings to building

**SECTION 5 – REACTIVITY DATA**

Stability: Stable  
 Conditions to Avoid: Keep separate from oxidizing agents. Gas explodes spontaneously when mixed with chloride dioxide. Incompatibility: Remove sources of ignition and observe distance requirements for storage tanks from combustible  
 Hazardous Decomposition Products: Deficient primary and secondary air can produce carbon monoxide.  
 Hazardous Polymerization: Will not occur.

## SECTION 6 – TOXICOLOGICAL PROPERTIES OF MATERIAL

Routes of Entry: Skin Contact, Eye Contact, Inhalation

**Inhalation:** Simple asphyxiant. No effect at concentrations of 10,000 ppm (peak exposures). Higher concentrations may cause central nervous system disorder and/or damage. Lack of oxygen may cause dizziness, loss of coordination, weakness, fatigue, euphoria, mental confusion, blurred vision, convulsions, breathing failure, coma and death. Breathing high vapour concentrations (saturated vapours) for a few minutes may be fatal. Saturated vapours may be encountered in confined spaces and/or under conditions of poor ventilation. Avoid breathing vapours or mist.

**Skin and Eye Contact:** Exposure to vapourizing liquid may cause frostbite (cold burns) and permanent eye damage.

**Ingestion:** Not considered to be a hazard.

**Acute Exposure:** Contact with Liquefied Petroleum Gas may cause frostbite or cold burns. Propane acts as a simple asphyxiant as oxygen content in air is displaced by the propane. At increasing concentration levels, propane may cause dizziness, headaches, loss of coordination, fatigue, unconsciousness and death.

**Chronic Exposure:** No reported effects from long term low level exposure.

**Sensitization to Product:** Not known to be a sensitizer.

**Occupational Exposure Limits:** American Conference of Governmental Industrial Hygienists (ACGIH) lists as a simple asphyxiant.

**ACGIH TLV:** 1000 ppm

**Carcinogenicity, Reproductive Toxicity, Teratogenicity, Mutagenicity:** No effects reported.

**Other Toxicological Effects:** None

## SECTION 7 – PREVENTATIVE MEASURES

**Eyes:** Safety glasses or chemical goggles are recommended when transferring product.

**Skin:** Insulated gloves required if contact with liquid or liquid cooled equipment is expected. Wear gloves and long sleeves when transferring product.

**Inhalation:** Where concentration in air would reduce the oxygen level below 18% air or exceed occupational exposure limits in section 6, self-contained breathing apparatus is required.

**Ventilation:** Use in well-ventilated areas. Use with explosion proof mechanical ventilation in confined spaces or poorly ventilated areas.

## SECTION 8 – EMERGENCY AND FIRST AID PROCEDURES

**Eyes:** Should eye contact with liquid occur, flush eyes with lukewarm water for 15 minutes. Obtain immediate medical care.

**Skin:** In case of "Cold Burn" from contact with liquid, immediately place affected area in lukewarm water and keep at this temperature until circulation returns. If fingers or hands are frostbitten, have the victim hold his hand next to his body such as under the armpit. Obtain immediate medical care.

**Ingestion:** None considered necessary.

**Inhalation:** Remove person to fresh air. If breathing is difficult or has stopped, administer artificial respiration. Obtain immediate medical care.

**Spill or Leak:** Eliminate leak if possible. Eliminate source of ignition. Ensure cylinder is upright. Disperse vapours with hose streams using fog nozzles. Monitor low areas as propane is heavier than air and can settle into low areas. Remain upwind of leak. Keep people away. Prevent vapour and/or liquid from entering into sewers, basements or confined areas.

## SECTION 9 – TRANSPORTATION, HANDLING AND STORAGE

- Transport and store cylinders and tanks secured in an upright position in a ventilated space away from ignition sources (so the pressure relief valve is in contact with the vapour space of the cylinder or tank).
- Cylinders that are not in use must have the valves in the closed position and be equipped with a protective cap or guard.

- Do not store with oxidizing agents, oxygen, or chlorine cylinders.
- Empty cylinders and tanks may contain product residue. Do not pressurize, cut, heat or weld empty containers.
- Transport, handle and store according to applicable federal and provincial codes and regulations.

Transportation of Dangerous Goods (TDG)  
TDG Classification: Flammable Gas 2.1

TDG Shipping Name: Liquefied Petroleum Gas (Propane)  
PIN Number: UN1075

## SECTION 10 – PREPARATION INFORMATION

Prepared by: Superior Propane  
Health Safety and Environment Team

Telephone: (403) 730-7500  
Revision: January 17, 2014  
Supersedes: January 17, 2011

The information contained herein is believed to be accurate. It is provided independently of any sale of the product. It is not intended to constitute performance information concerning the product. No express warranty, implied warranty of merchantability or fitness for a particular purpose is made with respect to the product information contained herein.



SDS Manual

Sealant



# SDS Manual

# Sealant

- Butyl Rubber Composite Sealer 409
- Duct Seal 413
- 3M Fire Barrier 2000+ Premium Silicone Sealant 421
- 3M Fire Barrier Watertight Sealant 3000 WT 429
- 3M Fire Barrier Sealant IC 15 WB+ 440
- Boss 370 HVAC Silicone 451
- One-Component Polyurethane Foam Sealant HC 458

## 1003 Safety Data Sheet (SDS, GHS Format)

May be used to comply with OSHA's Hazard Communication Standards 29 CFR 1910.1200. Standards must be consulted for specific requirements.

**Section 1 - Identification****Manufacturer's Name & Address:**

Sealers  
5017 S. 38th St.  
St. Louis, MO 63116

**Emergency Telephone Number:**

(314) 752-4667

**Chemical Family:**

Butyl Rubber Composite

**Date Prepared:**

01/01/2015

**Product Use:**

Thumb Grade Sealer

**Product Name:**

#1003

**Section 2 – Hazards Identification**

**Hazardous Components:** None

**ACGIH TLV:** No Data

**HMIS Ratings:** Health: 1 Flammability: 0 Reactivity: 0

The primary components utilized in the manufacturing of this product are believed to be non-hazardous and are listed under TOSCA regulations.

<b>Effects of Acute Exposure to Product:</b>	None known.
<b>Effects of chronic Exposure to Product:</b>	None known.
<b>Exposure Limits:</b>	None established.
<b>Irritability of Product:</b>	None known.
<b>Sensitization to Product:</b>	None known.
<b>Carcinogenicity:</b>	No evidence.
<b>Teratogenicity:</b>	None known
<b>Reproductive Toxicity:</b>	None known
<b>Mutagenicity:</b>	None known
<b>Synergistic Products:</b>	None known

**Section 3 – Composition/Physical Properties**

None of the components of this product are hazardous as defined by OSHA Hazard Communication Standard (29 CFR 1910.1200). If more information is required by a nurse or physician in the event of a medical emergency, contact us at the number listed in Section 1.

n/a = Not applicable

**CAS Number:** n/a

**Chemical Name:** n/a

**Percent by Weight:** n/a

**Section 4 – First Aid Measures**

**Specific Measures:**

<b>Eye Contact:</b>	Do not remove, seek medical attention immediately.
<b>Skin contact:</b>	If too sensitive, seek medical attention.
<b>Inhalation:</b>	Not applicable
<b>Ingestion:</b>	Not likely, but if ingested, could constipate or create a blockage. Seek medical attention.

HMIS Health Rating: 1

**Section 5 – Fire Fighting Measures**

**Extinguishing Media:** Use water, Foam, Carbon Dioxide, or dry chemical. Nitrogen oxides and carbon monoxides may be involved.

HMIS Flammability Rating: 0

**Section 6 – Accidental Release Measures**

**Leak or Spill Procedure:** As the product is a solid, a spill is not really possible. If the material is dumped or falls into an undesirable location and is no longer usable, dispose of the material as described in Section 13 of this document.

**Section 7 – Handling and Storage**

<b>Handling Procedures &amp; Equipment:</b>	Wash hands with soap and water before eating.
<b>Storage Requirements:</b>	Store in a cool, dry place.

**Section 8 – Exposure Controls and Personal Protection**



**Personal Protective Equipment:**

**HMIS “B” RATING**

<b>Gloves (specify):</b>	Cotton or other protective gloves.
<b>Respirator (specify):</b>	None needed.
<b>Eye (specify):</b>	Glasses or goggles recommended. Good industrial practice should be observed.
<b>Footwear (specify):</b>	Industrial shoes to protect skin from adhesive contact.
<b>Clothing (specify):</b>	Long sleeves, long trousers to protect skin from contact.
<b>Other (specify):</b>	None known

**Section 9 – Physical and Chemical Properties**

<b>Physical State:</b>	Solid	<b>Odor &amp; Appearance:</b>	Dark gray thumable
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solid with no odor.

Vapor Pressure:	n/a	Vapor Density:	n/a	
pH:	n/a	Evaporation Rate:	n/a	
Specific Gravity:	1.78 g/cc	Coeff. Water/Oil Dist.:	n/a	n/a = Not applicable
VOC (Grams/Liter):	n/a	Boiling Point (C):	n/a	
Solubility in Water:	Insoluble	Odor Threshold (ppm):	n/a	
Freezing Point (C):	n/a	Volatiles by Wt. (%):	2	
Flash Point (C):	310 COC			

### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable, no chemical decomposition.

**Possibility of hazardous reactions:** None are known.

**Hazardous decomposition products:** None are known.

**HMIS Reactivity Rating:** 0

### Section 11 – Toxicological Information

**Route of Entry:** Skin Contact (x) Skin Absorption ( ) Eye Contact (x) Inhalation ( ) Ingestion ( )

**Effects of Acute Exposure to Product:** None known.

**Effects of chronic Exposure to Product:** None known.

**Exposure Limits:** None established.

**Irritability of Product:** None known.

**Sensitization to Product:** None known.

**Carcinogenicity:** No evidence.

**Teratogenicity:** None known

**Reproductive Toxicity:** None known

**Mutagenicity:** None known

**Synergistic Products:** None known

### Section 12 – Ecological Information

**Ecotoxicity:** There is no evidence that this product is harmful to the environment.

**Bio-accumulative potential:** There is no evidence to suggest bioaccumulation will occur.

**Mobility:** Accidental dropping may lead to mixing with soil, but there is no evidence that this would cause adverse ecological effects.

### Section 13 – Disposal Considerations

To the best of our knowledge the product is not considered a hazardous waste based on U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in accordance with all local, state and federal regulations.

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**Section 14 – Transport Information**

**DOT Shipping Regulation:** Not Regulated  
**IATA Shipping Regulation:** Not Regulated –material not dangerous (non-hazardous)

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**Section 15 – Regulatory Information**

<b>OSHA</b>		This product or its components are non-hazardous
<b>SARA (311 or 312)</b>	<b>CAS Number:</b>	n/a
	<b>Chemical Name:</b>	n/a            n/a = Not applicable
	<b>Percent by Weight:</b>	n/a
	<b>Proposition 65:</b>	This product does not contain any chemicals known to the state of California to cause cancer or birth defects
<b>EU Directives</b>		Meets the RoHS requirements
<b>Canada: CEPA &amp; DSL</b>		Not regulated

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**Section 16 – Other Information**

**Prepared By:** Sealers, INC  
**Phone Number:** (314) 752-4667  
**Date:** 01/01/2015



Revision date: Initial version  
Date of issue: 08.15.16

Page: 1/8

<b>Trade name:</b>	<b>Duct Seal</b>
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**SECTION 1: Identification**

**Product identifier:** Duct Seal.  
**Synonyms:** None available.  
**Product Code Number:** 31-601, 31-605.  
**SDS number:** ID008  
**Recommended use:** Duct Sealer.  
**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information:**  
**Company Name:** IDEAL INDUSTRIES, INC.  
**Company Address:** Becker Place,  
Sycamore, IL 60178  
**Company Telephone:** Office hours (Mon – Fri)  
7AM - 5 PM (CDT)  
(815)895-5181  
**Company Contact Name:** Darryl Docter.  
**Company Contact Email:** IDEAL@IDEALINDUSTRIES.COM  
**Emergency phone number:** 24 HOUR EMERGENCY NUMBER:  
(815)895-5181.

**SECTION 2: Hazard(s) identification**

**Classification of the chemical in accordance with paragraph (d) of §1910.1200:**

*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.

**GHS Signal word:** Not applicable.

**GHS Hazard statement(s):** Not applicable.

**GHS Hazard symbol(s):** Not applicable.

**GHS Precautionary statement(s):**

**Prevention:**

No prevention precautionary statements required.

**Response:**

No response precautionary statements required.

**Storage:**

No storage precautionary statements required.

**Disposal:**

No disposal precautionary statements required.

**Hazard(s) not otherwise**

**Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:**

Not applicable.

**SECTION 3: Composition/information on ingredients**

**Mixture:**

Chemical name	CAS#	Concentration (weight %)
None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200		

**SECTION 4: First-aid Measures**

**Description of necessary measures:**

**Inhalation:** Not applicable.

**Skin contact:** If too sensitive, seek medical attention/

**Eye contact:** In case of contact, do not remove. Get medical attention.

**Ingestion:** Not likely. If ingested, constipation or blockage may occur. Seek medical attention.

**SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Use water, foam, carbon dioxide or dry chemical. Nitrogen oxides and carbon monoxides may be involved.

**Unsuitable extinguishing media:** No data available.

**Special protective equipment and precautions for fire-fighters:** For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

**SECTION 6: Accidental release measures**

**Leak or spill procedure:**

As the product is a solid, a spill is not really possible. If the material is dumped or falls in an undesirable location and is no longer usable, dispose of the material as described in section 13 of this document.

**SECTION 7: Handling and Storage**

**Precautions for safe handling:** Wash hands thoroughly with soap and water before eating.

**Conditions for safe storage, including any incompatibles:** Store in a cool, dry place.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters:**

**Occupational exposure limits:**

<b>US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits</b>		
<b>Substance</b>	<b>PEL-TWA (8 hour)</b>	<b>PEL-STEL (15 min)</b>
Not applicable		

<b>US ACGIH Threshold Limit Values</b>		
<b>Substance</b>	<b>TLV-TWA (8 hour)</b>	<b>TLV-STEL (15 min)</b>
Not applicable		

<b>NIOSH Exposure Limits</b>		
<b>Substance</b>	<b>TWA</b>	<b>STEL</b>
Not applicable		

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep dust below exposure limits. Wash hands before breaks and at the end of work day.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** The use of OSHA compliant safety glasses or goggles are recommended.

**Skin and Hand protection:** None normally required. For sensitive individuals, protect skin from contact. Use cotton gloves if required.

**Respiratory protection:** None required.

**Other:** None required.

**Thermal hazards:** No data available.

**SECTION 9: Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	Solid
<b>Form:</b>	Dark gray putty.
<b>Color:</b>	Dark gray.
<b>Odor:</b>	No odor.
<b>Odor threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	None
<b>Flash point:</b>	310°C
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%):</b>	Not applicable
<b>Flammability limit – upper (%):</b>	Not applicable
<b>Explosive limit – lower (%):</b>	Not applicable
<b>Explosive limit – upper (%):</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative Density:</b>	1.78
<b>Solubility(ies):</b>	Insoluble.
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Other information:</b>	
<b>% Volatile by volume:</b>	2%

**Volatile Organic Compounds (VOC)** 17 grams/liter  
(as packaged, minus water)  
**Percent solids by weight:** ~ 98%

**SECTION 10: Stability and Reactivity**

**Reactivity:** Not chemically reactive.  
**Chemical stability:** Stable, no chemical decomposition.  
**Possibility of hazardous reactions:** Hazardous reactions not anticipated.  
**Conditions to avoid:** None.  
**Hazardous decomposition Products:** None known.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure:**

**Inhalation:** Not an expected route of entry.  
**Ingestion:** Not an expected route of entry.  
**Skin:** Skin contact is a primary route of entry.  
**Eyes:** Not an expected route of entry.

**Symptoms related to the physical, chemical, and toxicological characteristics:**  
None known.

**Delayed and immediate effects and chronic effects from short or long-term exposure:**  
None known.

**Numerical measures of toxicity:**  
**Ingredient Information:**

Substance	Test Type (species)	Value
Not applicable	LD <sub>50</sub> Oral (Rat)	
	LD <sub>50</sub> Dermal (Rabbit)	
	LC <sub>50</sub> Inhalation (Rat)	

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available  
Acute Dermal Toxicity - no data available  
Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** No information available on the mixture, however none of the components have been classified to cause skin corrosion/irritation (or are below the concentration threshold for classification).

**Serious eye damage/eye irritation:** No information available on the mixture, however none of the components have been classified to cause

eye damage/irritation (or are below the concentration threshold for classification).

**Respiratory sensitization:** Not applicable. Product is a solid.

**Skin sensitization:** No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

**Germ cell mutagenicity:** None known.

**Carcinogenicity:** No evidence.

**Reproductive toxicity:** None known.

**Specific target organ toxicity-  
Single exposure:** None known.

**Specific target organ toxicity-  
Repeat exposure:** None known.

**Aspiration hazard:** None known.

**Further information:** No data available.

#### **SECTION 12: Ecological information**

**Ecotoxicity:**

**Product data:** No data available

**Ingredient Information:**

Substance	Test Type	Species	Value
Not applicable	LC <sub>50</sub>	Fish	
	LC <sub>50</sub>	Aquatic crustacea	
	EC <sub>50</sub>	Algae	

**Persistence and Degradability:** No data available

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** Accidental droppings may lead to mixing with soil, but there is no evidence that this would cause adverse ecological effects.

**Other adverse effects:** No data available.



### **SECTION 13: Disposal considerations**

**Disposal instructions:**

To the best of our knowledge the product is not considered hazardous based on U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in accordance with all local, state and federal regulations.

### **SECTION 14: Transport Information**

**DOT:** This material is not classified as dangerous under DOT regulations.

**IATA:** This material is not classified as dangerous under IATA regulations.

**IMDG:** This material is not classified as dangerous under IMDG regulations.

### **SECTION 15: Regulatory Information**

**Safety, health and environmental regulations specific for the product.**

**USA:**

**United States Federal Regulations:** This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

**Toxic Substances Control Act (TSCA)** – All substances in this product are listed, as required, on the TSCA inventory.

**SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:**

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substance List, 40 CFR 302.4:**

None listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None listed.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** None listed.

**SARA Title III**

**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):** None listed.

**Section 311/312 (40 CFR 370):**

**Acute Health Hazard:** No

**Chronic Health Hazard:** No

**Fire Hazard:** No

**Pressure Hazard:** No  
**Reactivity Hazard:** No

**Section 313 Toxic Release Inventory (40 CFR 372):**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: 14808-60-7 Crystalline Quartz Silica – 0.5%.

**STATE REGULATIONS:**

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986):** This product does not contain any chemicals known to the state of California to cause cancer or birth defects.

**Massachusetts Right to Know:** This product does not contain any chemicals listed on the Massachusetts Right to Know List.

**Minnesota Hazardous Substance List:** This product does not contain any chemicals listed on the Minnesota Hazardous Substance List.

**New Jersey Right to Know:** This product does not contain any chemicals listed on the New Jersey Right to Know list.

**Pennsylvania Right to Know:** This product does not contain any chemicals is listed on the Pennsylvania Right to Know List.

**Canada WHMIS Hazard Class:** Not regulated.

**SECTION 16: Other information, including date of preparation or last revision.**

Revision Date: May 3, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume 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 which exist.



## Safety Data Sheet

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<b>Issue Date:</b>	07/28/14	<b>Supersedes Date:</b>	04/28/14

### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Barrier 2000+ Premium Silicone Sealant

#### Product Identification Numbers

98-0400-5299-9, 98-0400-5300-5

#### 1.2. Recommended use and restrictions on use

##### Recommended use

A FIRE STOPPING SEALANT FOR FIRE RATED WALL AND FLOOR PENETRATION AND JOINTS., FIRE STOP MATERIAL

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

**Signal word**

Not applicable.

**Symbols**

Not applicable.

**Pictograms**

Not applicable.

#### 2.3. Hazards not otherwise classified

None.

60% of the mixture consists of ingredients of unknown acute oral toxicity.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Polysiloxane NJTS Reg. No. 04499600-7182	Trade Secret*	30 - 60 Trade Secret *
Calcium Carbonate	471-34-1	30 - 60 Trade Secret *
Dimethyl Siloxane, Dimethylvinylsiloxo-terminated	68083-19-2	5 - 10 Trade Secret *
Methyltrimethoxysilane	1185-55-3	3 - 7 Trade Secret *
Stearic Acid	57-11-4	1 - 5 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

\*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. If you feel unwell, 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:**

Rinse mouth. If you feel unwell, get 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

Not applicable

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

#### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### Hazardous Decomposition or By-Products

Substance

Carbon monoxide  
Carbon dioxide

Condition

During Combustion  
During Combustion

**5.3. Special protective actions for fire-fighters**

No special protective actions for fire-fighters are anticipated.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. 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.

**6.3. Methods and material for containment and cleaning up**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**7.2. Conditions for safe storage including any incompatibilities**

Keep container tightly closed.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Methyltrimethoxysilane	1185-55-3	CMRG	TWA:50 ppm	
Calcium Carbonate	471-34-1	CMRG	TWA:10 mg/m3;STEL:20 mg/m3	
Limestone	471-34-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
STEARATES	57-11-4	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin

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**

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

None required.

#### Skin/hand protection

No chemical protective gloves are required.

#### 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 air-purifying respirator suitable for organic vapors and particulates

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:	Solid
Specific Physical Form:	Paste
Odor, Color, Grade:	Gray silicone sealant paste with alcoholic odor.
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Boiling Point	<i>Not Applicable</i>
Flash Point	No flash point
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>
Specific Gravity	1.34 [Ref Std: WATER=1] [Details: CONDITIONS: @ 25C]
Solubility In Water	<i>No Data Available</i>
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	<i>No Data Available</i>
VOC Less H2O & Exempt Solvents	31 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

Substance

Condition

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:**

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

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

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

**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
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3.0 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Dimethyl Siloxane, Dimethylvinylsiloxy-terminated	Dermal	Rabbit	LD50 > 15,440 mg/kg
Dimethyl Siloxane, Dimethylvinylsiloxy-terminated	Ingestion	Rat	LD50 > 15,440 mg/kg
Stearic Acid	Dermal	Rabbit	LD50 > 2,000 mg/kg

Stearic Acid	Ingestion	Rat	LD50 > 5,000 mg/kg
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ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Dimethyl Siloxane, Dimethylvinylsiloxy-terminated	Rabbit	No significant irritation
Stearic Acid	Rabbit	Mild irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Dimethyl Siloxane, Dimethylvinylsiloxy-terminated	Rabbit	Mild irritant
Stearic Acid		Moderate irritant

**Skin Sensitization**

Name	Species	Value
------	---------	-------

**Respiratory Sensitization**

Name	Species	Value
------	---------	-------

**Germ Cell Mutagenicity**

Name	Route	Value
Stearic Acid	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Stearic Acid	Ingestion	Rat	Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	prematng & during gestation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
Stearic Acid	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
Calcium Carbonate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Stearic Acid	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 weeks

**Aspiration Hazard**

Name	Value
------	-------



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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility.

EPA Hazardous Waste Number (RCRA): Not regulated

## 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

311/312 Hazard Categories:

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

### 15.2. State Regulations

### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

### 15.4. International Regulations

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: 1 Flammability: 1 Instability: 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: 1 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® III) 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® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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<b>Issue Date:</b>	08/18/14	<b>Supersedes Date:</b>	08/18/14

### SECTION 1: Identification

#### 1.1. Product identifier

3M Fire Barrier Watertight Sealant 3000 WT

#### Product Identification Numbers

98-0400-5503-4, 98-0400-5504-2, 98-0400-5553-9, 98-0400-5586-9

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Caulk, Fire barrier caulking.

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2A.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1B.

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

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

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms



**Hazard Statements**

Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.

Causes damage to organs:  
blood or blood-forming organs |

Causes damage to organs through prolonged or repeated exposure:  
blood or blood-forming organs |

May cause damage to organs through prolonged or repeated exposure:  
kidney/urinary tract |

**Precautionary Statements**

**General:**

Keep out of reach of children.

**Prevention:**

Do not breathe dust/fume/gas/mist/vapors/spray.  
Wear protective gloves and eye/face protection.  
Do not eat, drink or smoke when using this product.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.

**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: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
IF exposed: Call a POISON CENTER or doctor/physician.

**Storage:**

Store locked up.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

None.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Melamine	108-78-1	30 - 60 Trade Secret *
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	70131-67-8	15 - 40 Trade Secret *
Graphite	7782-42-5	10 - 30 Trade Secret *

Poly(Dimethylsiloxane)	63148-62-9	10 - 30 Trade Secret *
Methyl Tris(Butylideneaminoxy)Silane	22984-54-9	3 - 7 Trade Secret *
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	0 - 5 Trade Secret *
Silica	7631-86-9	0 - 5 Trade Secret *
(3-Aminopropyl)Triethoxysilane	919-30-2	0.5 - 1.5 Trade Secret *
3-Iodo-2-Propynyl Butylcarbamate	55406-53-6	< 0.1 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. If you feel unwell, get medical attention.

#### Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

#### Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### If Swallowed:

Rinse mouth. If you feel unwell, get 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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Material will not burn. Non-combustible. Use a fire fighting agent suitable for surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. 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**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid breathing of vapors created during cure cycle. Keep out of reach of children. 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

**7.2. Conditions for safe storage including any incompatibilities**

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
Melamine	108-78-1	AIHA	TWA(inhalable particulates):10 mg/m3;TWA(respirable particles):5 mg/m3	
SILICA, AMORPHOUS	112945-52-5	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	
Silica	7631-86-9	CMRG	TWA(as respirable dust):3 mg/m3	
SILICA, AMORPHOUS	7631-86-9	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	
Graphite	7782-42-5	ACGIH	TWA(respirable fraction):2 mg/m3	
Graphite	7782-42-5	OSHA	TWA:15 millions of particles/cu. ft.	
GRAPHITE SYNTHETIC	7782-42-5	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	

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**

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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:  
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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

#### 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 air-purifying respirator suitable for organic vapors and particulates

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:	Solid
Specific Physical Form:	Paste
Odor, Color, Grade:	Light gray with black flecks, thixotropic paste
Odor threshold	<i>No Data Available</i>
Melting point	<i>Not Applicable</i>
Boiling Point	<i>No Data Available</i>
Flash Point	No flash point
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapor Pressure	Nil
Vapor Density	Nil
Specific Gravity	1.25 [Ref Std: WATER=1]
Solubility in Water	Nil
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>Not Applicable</i>

Decomposition temperature	No Data Available
Viscosity	No Data Available
Volatile Organic Compounds	30 g/l
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	30 g/l

## 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

Not determined

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Formaldehyde	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Nitrogen	Not Specified

## 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:

May cause target organ effects after inhalation.

#### Skin Contact:

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

#### Eye Contact:



Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion:**

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:**

Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

**Prolonged or repeated exposure may cause:**

Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

**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	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Melamine	Dermal	Rabbit	LD50 > 1,000 mg/kg
Melamine	Ingestion	Rat	LD50 3,161 mg/kg
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	Dermal	Rabbit	LD50 > 16,000 mg/kg
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	Ingestion	Rat	LD50 > 64,000 mg/kg
Poly(Dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Graphite	Ingestion	Rat	LD50 > 2,000 mg/kg
Poly(Dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Methyl Tris(Butylideneaminoxy)Silane	Ingestion	Rat	LD50 2,260 mg/kg
Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Rat	LD50 > 5,110 mg/kg
(3-Aminopropyl)Triethoxysilane	Dermal	Rabbit	LD50 4,290 mg/kg
(3-Aminopropyl)Triethoxysilane	Ingestion	Rat	LD50 1,570 mg/kg
3-Iodo-2-Propynyl Butylcarbamate	Dermal	Rabbit	LD50 > 2,000 mg/kg
3-Iodo-2-Propynyl Butylcarbamate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.67 mg/l
3-Iodo-2-Propynyl Butylcarbamate	Ingestion	Rat	LD50 1,056 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Melamine	Guinea pig	No significant irritation
Graphite	Rabbit	No significant irritation

Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Silica	Rabbit	No significant irritation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
(3-Aminopropyl)Triethoxysilane	Rabbit	Corrosive
3-Iodo-2-Propynyl Butylcarbamate	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Melamine	Rabbit	No significant irritation
Graphite	Rabbit	No significant irritation
Poly(Dimethylsiloxane)	Rabbit	No significant irritation
Silica	Rabbit	No significant irritation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
(3-Aminopropyl)Triethoxysilane	Rabbit	Corrosive
3-Iodo-2-Propynyl Butylcarbamate	Rabbit	Corrosive

**Skin Sensitization**

Name	Species	Value
Melamine	Guinea pig	Not sensitizing
Silica	Human and animal	Not sensitizing
Synthetic Amorphous Silica, Fumed, Crystalline Free	Human and animal	Not sensitizing
(3-Aminopropyl)Triethoxysilane	Guinea pig	Sensitizing
3-Iodo-2-Propynyl Butylcarbamate	Multiple animal species	Sensitizing

**Respiratory Sensitization**

Name	Species	Value
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**Germ Cell Mutagenicity**

Name	Route	Value
Melamine	In Vitro	Not mutagenic
Melamine	In vivo	Not mutagenic
Siloxanes and Silicones, Di-Me, Hydroxy-Terminated	In Vitro	Not mutagenic
Graphite	In Vitro	Some positive data exist, but the data are not sufficient for classification
Silica	In Vitro	Not mutagenic
Synthetic Amorphous Silica, Fumed, Crystalline Free	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Melamine	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Synthetic Amorphous Silica, Fumed, Crystalline Free	Not Specified	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
Melamine	Ingestion	Not toxic to development	Rat	NOAEL 1,060 mg/kg/day	during organogenesis
Silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation

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Silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
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**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Melamine	Ingestion	kidney and/or bladder	May cause damage to organs through prolonged or repeated exposure	Rat	LOAEL 63 mg/kg/day	13 weeks
Graphite	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Silica	Inhalation	respiratory system   silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation	respiratory system   silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
3-Iodo-2-Propynyl Butylcarbamate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL .00116 mg/l	90 days

**Aspiration Hazard**

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

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and

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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.

EPA Hazardous Waste Number (RCRA): Not regulated

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

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

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: 0 Instability: 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: \*2 Flammability: 0 Physical Hazard: 0 Personal Protection: X** - See PPE section.

Hazardous Material Identification System (HMIS® III) 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® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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## Safety Data Sheet

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<b>Issue Date:</b>	07/26/18	<b>Supersedes Date:</b>	06/29/18

### SECTION 1: Identification

#### 1.1. Product identifier

3M FireBarrier™ Sealant IC 15 WB+

#### Product Identification Numbers

42-0016-4768-6, 42-0016-4769-4, 42-0016-4770-2, 98-0400-5509-1, 98-0400-5510-9, 98-0400-5511-7, 98-0400-5512-5, 98-0400-5630-5

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Fire Barrier Sealant.

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Industrial Adhesives and Tapes Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

#### 2.1. Hazard classification

Reproductive Toxicity: Category 2.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Health Hazard |

##### Pictograms

**Hazard Statements**

Suspected of damaging fertility or the unborn child.

**Precautionary Statements****General:**

Keep out of reach of children.

**Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves.

**Response:**

IF exposed or concerned: Get medical advice/attention.

**Storage:**

Store locked up.

**Disposal:**

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

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Calcium Carbonate	1317-65-3	30 - 60 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Polymer NJTS Reg. No. 04499600-7314	Trade Secret*	10 - 30 Trade Secret *
Zinc Borate 2335	138265-88-0	3 - 7 Trade Secret *
Sodium Silicate	1344-09-8	3 - 7 Trade Secret *
2-Aminoisobutanol	124-68-5	< 0.5 Trade Secret *
Quartz Silica	14808-60-7	< 0.5 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

\*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. If you feel unwell, get medical attention.

**Skin Contact:**

Wash with soap and water. If you are concerned, get medical advice.

**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:**

Rinse mouth. If you feel unwell, get 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**

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**Hazardous Decomposition or By-Products**

Substance

Carbon monoxide

Carbon dioxide

Condition

During Combustion

During Combustion

**5.3. Special protective actions for fire-fighters**

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. 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. 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.

**6.3. Methods and material for containment and cleaning up**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing 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 release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

**7.2. Conditions for safe storage including any incompatibilities**



No special storage requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Calcium Carbonate	1317-65-3	OSHA	TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable fraction):5 mg/m <sup>3</sup>	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m <sup>3</sup>	A2: Suspected human carcin.
Quartz Silica	14808-60-7	OSHA	TWA Table Z-1(respirable):0.05 mg/m <sup>3</sup> ;TWA Table Z-3(respirable):0.1 mg/m <sup>3</sup>	

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

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

None required.

##### 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.

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

##### 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 air-purifying respirator suitable for organic vapors and particulates

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**

<b>General Physical Form:</b>	Solid
<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Light yellow viscous paste with a mild odor
<b>Odor threshold</b>	<i>No Data Available</i>
<b>pH</b>	8 - 9
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	Flash point > 93 °C (200 °F)
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>No Data Available</i>
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Density</b>	1.4 g/cm <sup>3</sup>
<b>Specific Gravity</b>	1.4 [ <i>Ref Std: WATER=1</i> ]
<b>Solubility in Water</b>	Moderate
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	<=20 % weight [ <i>Test Method:tested per EPA method 24</i> ]
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	<=4 g/l [ <i>Test Method:tested per EPA method 24</i> ]

**SECTION 10: Stability and reactivity****10.1. Reactivity**

This material is considered to be non reactive under normal use conditions.

**10.2. Chemical stability**

Stable.

**10.3. Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products****Substance**

None known.

**Condition**

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:**

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

May cause additional health effects (see below).

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

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

May cause additional health effects (see below).

**Additional Health Effects:**

**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Carcinogenicity:**

Ingredient	CAS No.	Class Description	Regulation
SILICA, CRYSTAL AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
Quartz Silica	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

**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
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Polymer NJTS Reg. No. 04499600-7314	Dermal		LD50 estimated to be > 5,000 mg/kg
Polymer NJTS Reg. No. 04499600-7314	Ingestion	Rat	LD50 > 2,000 mg/kg
Zinc Borate 2335	Dermal	Rabbit	LD50 > 5,000 mg/kg
Zinc Borate 2335	Inhalation-	Rat	LC50 > 4.95 mg/l

	Dust/Mist		
Zinc Borate 2335	Ingestion	Rat	LD50 > 5,000 mg/kg
Sodium Silicate	Dermal	Rabbit	LD50 > 4,640 mg/kg
Sodium Silicate	Ingestion	Rat	LD50 500 mg/kg
2-Aminoisobutanol	Dermal	Rabbit	LD50 > 2,000 mg/kg
2-Aminoisobutanol	Ingestion	Rat	LD50 2,900 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Polymer NJTS Reg. No. 04499600-7314	Rabbit	Minimal irritation
Zinc Borate 2335	Rabbit	No significant irritation
Sodium Silicate	Rabbit	Corrosive
2-Aminoisobutanol	Rabbit	Irritant
Quartz Silica	Professional judgement	No significant irritation

### Serious Eye Damage/Irritation

Name	Species	Value
Calcium Carbonate	Rabbit	No significant irritation
Polymer NJTS Reg. No. 04499600-7314	Professional judgement	Mild irritant
Zinc Borate 2335	Rabbit	Severe irritant
Sodium Silicate	Rabbit	Corrosive
2-Aminoisobutanol	Rabbit	Corrosive

### Skin Sensitization

Name	Species	Value
Zinc Borate 2335	Guinea pig	Not classified
Sodium Silicate	Mouse	Not classified
2-Aminoisobutanol	Guinea pig	Not classified

### Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

### Germ Cell Mutagenicity

Name	Route	Value
Zinc Borate 2335	In Vitro	Some positive data exist, but the data are not sufficient for classification
Sodium Silicate	In Vitro	Not mutagenic
Sodium Silicate	In vivo	Not mutagenic
2-Aminoisobutanol	In Vitro	Not mutagenic
2-Aminoisobutanol	In vivo	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification

### Carcinogenicity

Name	Route	Species	Value
Quartz Silica	Inhalation	Human and animal	Carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Zinc Borate 2335	Ingestion	Toxic to male reproduction	Rat	NOAEL 100 mg/kg/day	92 days
Zinc Borate 2335	Ingestion	Toxic to development	Rat	LOAEL 100 mg/kg/day	during gestation
Sodium Silicate	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
2-Aminoisobutanol	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring into lactation
2-Aminoisobutanol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	37 days
2-Aminoisobutanol	Dermal	Not classified for development	Rat	NOAEL 300 mg/kg/day	during gestation
2-Aminoisobutanol	Ingestion	Toxic to development	Rat	NOAEL 100 mg/kg/day	prematuring into lactation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
Zinc Borate 2335	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Sodium Silicate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
2-Aminoisobutanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Zinc Borate 2335	Inhalation	immune system   respiratory system   heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	2 weeks
Zinc Borate 2335	Ingestion	endocrine system   liver   kidney and/or bladder   heart   skin   bone, teeth, nails, and/or hair   hematopoietic	Not classified	Rat	NOAEL 375 mg/kg/day	92 days

		system   immune system   nervous system   eyes   respiratory system   vascular system				
Sodium Silicate	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
Sodium Silicate	Ingestion	endocrine system   blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
Sodium Silicate	Ingestion	heart   liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
2-Aminoisobutanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 23 mg/kg/day	90 days
2-Aminoisobutanol	Ingestion	blood   eyes   kidney and/or bladder	Not classified	Dog	NOAEL 2.8 mg/kg/day	1 years
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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

**SECTION 12: Ecological information****Ecotoxicological information**

<u>Test Organism</u>	<u>Test Type</u>	<u>Result</u>
Water flea, Daphnia magna	48 hours Aquatic Toxicity - Acute	27 mg/l
Green algae, Pseudokirchneriella subcapitata	72 hours Aquatic Toxicity - Chronic	2.6 % weight

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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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.

**EPCRA 311/312 Hazard Classifications:**

<b>Physical Hazards</b>
Not applicable

<b>Health Hazards</b>
Reproductive toxicity

**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 Borate 2335 (ZINC COMPOUNDS)	138265-88-0	3 - 7

**15.2. State Regulations**  
 Contact 3M for more information.

**15.3. Chemical Inventories**

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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

This product complies with the New Zealand Hazardous Substances and New Organisms Act (1996).

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: 1 Flammability: 1 Instability: 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.

**Document Group:** 19-9776-6 **Version Number:** 8.04  
**Issue Date:** 07/26/18 **Supercedes Date:** 06/29/18

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**3M USA SDSs are available at [www.3M.com](http://www.3M.com)**





# Safety Data Sheet

## BOSS® 370 HVAC Silicone

### Section 1. Identification

Product Identifier	BOSS® 370 HVAC Silicone		
Synonyms	37003; 37002; 37001; 37000; 02260CL10; 02260WH10; 02260BK10; 02260AL10		
Manufacturer Stock Numbers	02260CL10; 02260WH10; 02260BK10; 02260AL10		
Recommended use	Refer to Technical Information		
Uses advised against	Refer to Technical Information		
Manufacturer Contact Address	Soudal Accumetric 350 Ring Road Elizabethtown, KY, 42701 USA		
	Phone	Emergency Phone	Fax
	(270) 769-3385	(800) 424-9300 CHEMTREC	(270) 765-2412

### Section 2. Hazards Identification

Classification	N/A
Signal Word	
Pictogram	
Hazard Statements	N/A
Precautionary Statements	
Response	N/A
Prevention	Use only outdoors or in a well-ventilated area.
Storage	N/A
Disposal	N/A

Ingredients of unknown toxicity 0%

Hazards not Otherwise Classified

GHS Classification Not a hazardous substance or mixture.

GHS Label Element Not a hazardous substance or mixture.

Other hazards None known

### Section 3. Ingredients

CAS	Ingredient Name	Weight %
64742-46-7	Distillates (petroleum), hydrotreated middle	20% - 30%
7631-86-9	Amorphous silica	5% - 10%

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-Aid Measures

Eye Contact Rinse with water for 15 minutes. Obtain medical attention.

Skin Contact Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.

Inhalation Material is not likely to present an inhalation hazard at ambient conditions. If material is heated or vapor are generated, care should be taken to prevent inhalation. In case of exposure to vapor, move to fresh air.

Ingestion Get immediate medical attention. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.

Comments Treat according to person's condition and specifics of exposure.

### Section 5. Fire Fighting Measures

Suitable Extinguishing Media N/A

Unsuitable Extinguishing Media N/A

Auto-ignition Temperature Not determined

Extinguishing Media On large fires use dry chemical, foam, or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.

Flammability Limits in Air Not determined

Special Fire Fighting Procedures Self-contained breathing apparatus and protective clothing should be worn when fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire or Explosion Hazards None known

Hazardous Decomposition Products Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products:  
Carbon oxides and traces of incompletely burned carbon compounds  
Formaldehyde  
Silicon dioxide

Depending on color, may also evolve:  
Metal oxides

## Section 6. Accidental Release Measures

Steps to be taken in case of spill or release Observe all personal protection equipment recommendations. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur.

Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

## Section 7. Handling and Storage

Storage Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture. This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimize secondary explosion potential.

Handling Use adequate ventilation. Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection. Avoid eye contact. Avoid skin contact. Avoid breathing vapors, mist, dust or fumes. Keep container closed. Do not take internally.

## Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV OSHA PEL STEL		
	Distillates (petroleum), hydrotreated middle	5 mg/m3	5 mg/m3	10 mg/m3
	Amorphous silica	10 mg/m3	6 mg/m3	Not Est.
Personal Protective Equipment	Goggles, Gloves			

Exposure Controls	Acetic acid is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 10 ppm and ACGIH TLV: TWA 10 ppm, STEL 15 ppm.
Engineering Controls	Local Ventilation: Recommended General Ventilation: Recommended
Eye Protection	Safety goggles or glasses with side shields are recommended.
Skin Protection	Wash at mealtimes and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.
Respiratory Protection	<p>Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.</p> <p>Use respiratory protection unless adequate exhaust ventilation is provided or exposure assessment demonstrates that exposures are within exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.</p> <p>Suitable Respirator: Respiratory protection is not needed under ambient conditions.</p> <p>If vapor/mist/dust/fumes are generated when material is heated or handled, respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirator. Protection provided by air purifying respirators against exposure to any hazardous chemical limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure level are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.</p>
Precautionary Measures	Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust or fumes. Keep container closed. Do not take internally. Use reasonable care.
Comment	Product evolves acetic acid when exposed to water or humid air. Provide ventilation during use to control acetic acid within exposure guidelines or use respiratory protection.
Note	<p>When heated to temperatures above 150C (300F) in the presence of air, product can form formaldehyde vapors. Physical and health hazard information is readily available on the Material Safety Data Sheet.</p> <p>These precautions are for room temperature handling. Use at elevated temperatures or aerosol/spray applications may require added precautions.</p>

## Section 9. Physical and Chemical Properties

Physical State	Paste
Color	Refer to product label
Odor	Acetic Acid Odor
Odor Threshold	N/A
Solubility	Not Determined
Partition coefficient Water/n-octanol	N/A

VOC%	24 g/L
Viscosity	Not Determined
Specific Gravity	0.96
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	Not Applicable
FP Method	N/A
Ph	Not Determined
Melting Point	Not Determined
Boiling Point	Not Determined
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	Not Determined
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	Not Determined
Vapor Density	Not Determined

Note

The above information is not intended for use in preparing product specifications. Contact Soudal Accumetric before writing specifications.

## Section 10. Stability and Reactivity

Materials to Avoid / Incompatibility	Oxidizing material can cause a reaction. Water, moisture or humid air can cause hazardous vapors to form as described in Section 8.
Conditions to Avoid	None known
Hazardous polymerization	Will not occur
Chemical Stability	Stable

## Section 11. Toxicological Information

Special Hazard Information No known applicable information on Components

## Section 12. Ecological Information

Fate and Effects in Waste Complete information is not yet available.

Water Treatment Plants	
Environmental Effects	Complete information is not yet available.
Environmental Fate and Distribution	Complete information is not yet available.

**Section 13. Disposal**

Waste Disposal Method	We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes.
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This product is not known to be regulated under RCRA regulations. Disposal of unused portions of this product and process waste containing this product should be done only after a careful evaluation and in compliance with all federal, local and state laws.

**Section 14. Transport Information**

UN Number	N/A
UN Proper Shipping Name	Not regulated
DOT Classification	Not regulated
Packing Group	Not regulated
Air Shipment (IATA)	Not subject to IATA regulations.
Ocean Shipment (IMDG)	Not subject to IMDG code.

**Section 15. Regulatory Information**

	The contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA Status	All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.
SARA Title III Section 302 Extremely Hazardous Substances	None
SARA Title III Section 304 CERCLA Substances dangereuses	None
SARA Title III Section 312 Hazard Class	Acute: Yes Chronic: No Fire: No Pressure: No Reactive: No
SARA Title III Section 313 Toxic Chemicals	None present or none present in regulated quantities.
Note	Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

California Proposition 65	This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm: None known
Massachusetts	Silica, amorphous (7631-86-9)
New Jersey	Depending on color, may also contain: Titanium dioxide (13463-67-7) Dimethyl siloxane, hydroxy-terminated (70131-67-8) Ethyltriacetoxysilane (17689-77-9) Hydrotreated medium petroleum distillates (64742-46-7) Methyltriacetoxysilane (4253-34-3) Silica, amorphous (7631-86-9)
Pennsylvania	Depending on color, may also contain: Carbon black (1333-86-4) Titanium dioxide (13463-67-7) Dimethyl siloxane, hydroxy-terminated (70131-67-8) Hydrotreated medium petroleum distillates (64742-46-7) Silica, amorphous (7631-86-9)
	Depending on color, may also contain: Titanium dioxide (13463-67-7)

<b>Section 16. Other Information</b>
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Revision Date 8/12/2016

Disclaimer The data contained herein is based upon information that Soudal Accumetric believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements or suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

**ONE COMPONENT POLYURETHANE FOAM SEALANT HC**  
(Includes Strawfoam, Gunfoam, Fireblock, Black and Extreme)  
**MSDS # A16186**

Issue Date: March 2005    Last Rev: October 22, 2010

**M A T E R I A L       S A F E T Y       D A T A       S H E E T**

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**1. PRODUCT & COMPANY IDENTIFICATION**

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**Chemical Product**

One-Component Polyurethane Foam Sealant HC

**Manufacturer**

FOMO PRODUCTS, INC.  
P. O. Box 1078  
Norton, Ohio 44203

**Emergency Overview**

Product Information: 1-800-321-5585 (Monday-Friday 8:00am-5:00pm). In Ohio and outside the United States call (330) 753-4585

Transportation Emergency: CHEMTREC 1-800-424-9300 (24 hours). One-Component Polyurethane Foam Sealant HC is registered by the manufacturer, FOMO PRODUCTS, INC.

International Transportation Emergency: CHEMTREC (703) 527-3887

Product is a liquid urethane prepolymer mixture that is packaged under pressure (Flammable Compressed Gas). Containers should not be heated above 120°F (49°C) to avoid excessive pressure build-up.

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**2. HAZARDS IDENTIFICATION**

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**Emergency Overview**

DANGER! Extremely Flammable. Vapors may cause a flash fire. May cause eye, skin, nose, throat and respiratory tract irritation. May cause an allergic skin reaction. Harmful if inhaled. Contents under pressure, storage temperature should not exceed 120°F (49°C) in order to avoid excessive pressure build up and possible container rupture. Vapor reduces oxygen available for breathing. May cause lung injury. Respiratory sensitizer. May cause central nervous system effects. May cause liver damage. Toxic gases/fumes may be given off during burning.

**Potential Health Effects**

The primary adverse health effects of this product are related to the individual components that make-up the mixture; Polymeric Isocyanate (pMDI) component and the Liquefied Petroleum Gas (Hydrocarbon, HC) component. These products should be used in a well ventilated area to avoid exceeding the exposure limits of these components (listed in Section 8 of this MSDS). If used indoors, mechanical ventilation or exhaust should be provided during use and until product is cured (see Section 8).

**Entry Route: Effects of Overexposure**

**Inhalation:** Vapors may irritate mucous membranes with tightness in chest, coughing, wheezing, or allergic asthmas-like sensitivity. Extensive overexposure can lead to respiratory symptoms such as asthma and pulmonary edema. These diseases may be aggravated by prolonged exposure. Excessive exposure may cause irritation to upper respiratory tract and lungs. Over exposure to the Hydrocarbon Gas Mixture may cause lightheadedness, headaches, or lethargy. Persons with cardiac arrhythmia may be at increased risk in severe exposure. In poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to



displacement of oxygen. Excessive exposure may aggravate pre-existing conditions such as asthma, emphysema, bronchitis, etc

**Eyes:** May cause eye irritation. Foam contact can cause physical damage due to its adhesive characteristics. Vapors may cause slight temporary corneal injury.

**Skin:** May cause localized irritation, reddening or swelling. Prolonged or repeated exposure may lead to sensitization. May cause an allergic reaction. Prolonged skin exposure is unlikely to result in absorption of harmful amounts. Foam will stick to the skin causing irritation upon removal. (See section 8 for PPE guidelines).

**Ingestion:** May cause irritation of mucous membranes in the mouth and digestive tract. Small amounts swallowed as a result of normal handling are not likely to cause injury; swallowing large amounts may cause injury.

If accidental contact occurs, follow the appropriate first aid procedure described in Section 4 of this MSDS.

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### 3. COMPOSITION

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<u>Chemical Name (common names)</u>	<u>CAS Number</u>	<u>Percentage</u>
Urethane Pre-Polymer Blend (Using Non-Hazardous Proprietary Polyol Blend)	Not Available	60 to 100 percent
4,4' Diphenylmethane diisocyanate (MDI)	101-68-8	5 to 10 percent
Higher Oligomers of MDI (pMDI)	9016-87-9	5 to 10 percent
Isobutane	74-28-5	5 to 10 percent
Dimethyl ether	115-10-6	5 to 10 percent
Propane	74-98-6	1 to 5 percent

(NOTE: See Section 8 of this MSDS for Exposure Guidelines)

(NOTE: See Section 11 of this MSDS for Toxicological Information- LC<sub>50</sub> and LD<sub>50</sub>)

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### 4. FIRST AID

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**Inhalation:** If breathing difficulty is experienced, move to area free of exposure. Provide fresh air. If necessary, provide oxygen or artificial respiration by trained personnel and obtain medical attention. Persons receiving significant exposure should be observed for 24-48 hours for signs of respiratory distress.

**Eye Contact:** Immediately flush with clean water for at least 15 minutes and obtain medical attention. If the person is wearing contact lenses, flush initially for 5 minutes, remove lenses and then flush for an additional 15 minutes. Contact a physician.

**Skin Contact:** Use a rag to remove liquid from skin and remove contaminated clothing. May cause mild irritation or temporary darkening of skin. Persistent washing with soap and water will eventually remove all residues. If irritation persists, obtain medical attention.

**Ingestion:** Drink 1 to 3 glasses of water and seek immediate medical attention. Do not induce vomiting. Never give anything orally to an unconscious person.

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## 5. FIRE FIGHTING MEASURES

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**Extinguishing Media:** Dry Chemical, carbon dioxide, Halon 1211, chemical foams, or water spray (if used in large quantities).

**Firefighting Procedures:** Isolate area and deny unnecessary entry. Stay upwind. Water is not recommended unless used in large quantities as a fine spray when other extinguishing agents are not available. Water may spread the fire. Protective equipment: Wear self-contained breathing apparatus to protect against toxic decomposition by-products, including Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen fluoride and traces of Hydrogen cyanide. Wear all turn out gear (boots, trousers, helmet, gloves, and hood).

**Unusual Fire/Explosion Hazards:** Contains flammable propellant. Eliminate ignition sources. High temperatures will raise the pressure in the containers, which may lead to rupturing. Aerosol cans exposed to fire or high temperature can rupture and rocket. Cured foam is organic and, therefore, will burn in the presence of sufficient heat, oxygen and an ignition source. Main hazards associated with burning foam are similar to burning of other organic materials (wood, paper, cotton, etc.) and precautions against exposure should be taken accordingly. Dense smoke is produced when the product is burned. Avoid welding or other "hot work" in the vicinity of exposed cured foam.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions:** Wear skin, eye, and respiratory protection and equipment (See section 8). Ventilate the area. Vapors can accumulate in low areas. Read all product instructions before using.

**Environmental Precautions:** Containment should include preventing the spill from entering drains, sewers, waterways, groundwater, or soil.

**Clean Up Procedures/Neutralization:** Uncured product is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove the residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product is cured; it can only be removed mechanically by scraping, buffing, etc. Dispose as plastic waste (foam plastic) in accordance with all applicable guidelines and regulations.

Before disposing of containers, relieve container of any remaining foam and pressure. Allow product to fully cure before disposing. Never discard in a liquid state.

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## 7. HANDLING AND STORAGE

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**Handling:** Extremely flammable aerosol compressed gas. Keep away from sources of heat, sparks, and flame. Remove all ignition sources. Turn off all pilot lights. Do not smoke. Wear proper personal protective equipment when using the product. Use only in a well ventilated area.

**Storage:** Store in a dry place. Ideal storage temperature for is 60°F to 80°F (15.5°C to 26.6°C). Do not expose aerosol cans to open flame or temperatures above 120°F (49°C). Excessive heat can cause premature aging of components resulting in a shorter shelf life. Storage below 55°F (12.7°C) may affect foam quality if chemicals are not warmed to room temperature before using. Protect containers from physical abuse. Always store containers upright. **KEEP AWAY FROM CHILDREN**

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Read all product instructions before using.**

**Exposure Guidelines**

4,4 Diphenylmethane diisocyanate	<u>OSHA</u>	.020 ppm ceiling	.200 mg/m <sup>3</sup>
	<u>ACGIH</u>	.200 mg/m <sup>3</sup> ceiling	.051 mg/m <sup>3</sup>
Isobutane	<u>ACGIH</u>	1000 ppm TWA	

Dimethyl ether	<u>WEEL</u>	1000 ppm TWA	1880 mg/m <sup>3</sup>
Propane	<u>ACGIH</u>	1000 ppm TWA	
	<u>OSHA</u>	1000 ppm PEL	1880 mg/m <sup>3</sup>

### Personal Protective Equipment

**Respiratory Protection/Ventilation:** Use products only in a well ventilated area. If atmospheric levels are expected to exceed the exposure levels, use a NIOSH approved air purifying respirator equipped with an organic vapor cartridge and a particulate filter (N95). If atmospheric levels exceed 10 times the TLV or PEL level for which an air-purifying respirator is effective, use a powered air purifying respirator (PAPR). The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). Use local and general exhaust ventilation to control levels of exposure. The odor and irritancy of this material are inadequate to warn of excessive exposure.

**Hand Protection:** Use chemically resistant gloves. Nitrile/butadiene rubber, Butyl Rubber, polyethylene, PVC (vinyl), or neoprene gloves are also effective. Glove selection should take into account potential body reactions to certain materials and manufacturer's instructions for use.

**Eye Protection:** Use safety glasses or goggles. An eye wash station should be in the area.

**Skin Protection:** Avoid contact with skin. Use clothing that protects against dermal exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid which foams upon release of the container as an off-white to yellowish froth. (Note; Appearance may differ with the introduction of a dye or colorant).
Odor:	Slight hydrocarbon odor during curing stage.
pH:	No test data available
Melting/Freezing Point:	No test data available
Boiling Point:	Liquefied petroleum gas (hydrocarbon, HC) components boil between -28°F to 11°F
Flash Point:	(-33.3°C to -11.7°C). Other components boil at temperatures greater than 200°F (93.3°C).
Specific Gravity:	-156°F (-68.9°C) estimated based on liquefied petroleum gas (hydrocarbon, HC).
Solubility in Water:	Approximately 1.1 (H <sub>2</sub> O = 1)
Partition Coefficient N-octanol/water:	Insoluble, reacts slowly with water during cure; liberating traces of CO <sub>2</sub>
Auto-ignition Temperature:	No test data available
Decomposition Temperature:	No test data available
Odor Threshold:	No test data available
Evaporation Rate:	No test data available
Flammability Limits:	No test data available
Vapor Pressure:	Not available
Vapor Density:	Contents under pressure have vapor pressure greater than 50 psig /345 kPa. After release from container, the vapor pressure is very low (not determined).
Explosion Data:	Not available
	Contents can be sensitive to mechanical impact or static discharge. A vapor released during and immediately after dispensing may ignite explosively if proper ventilation is not employed and vapor build up is allowed to occur. Extinguish or remove all sources of ignition during dispensing, until product becomes tack free or skins over.

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## 10. STABILITY AND REACTIVITY

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**Stability:** This product is considered stable under normal and anticipated storage and handling conditions. Do not store above 120°F (49°C). For longest shelf life, avoid storage above 90°F (32.2°C).

**Materials to Avoid:** Alcohols, strong bases or amines, metal compounds, ammonia, strong oxidizers.

**Conditions to Avoid:** High temperatures will raise the pressure in the containers, which may lead to rupturing. Product use is temperature sensitive. Avoid temperatures below 40°F (5°C) or temperatures above 95°F (35°C).

**Thermal Decomposition:** Toxic decomposition by-products, including Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen fluoride and traces of Hydrogen cyanide can be released in instances of fire.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity for MDI:

Ingestion: LD50 >5,000 mg/kg (rat, male/female)

Skin: LD50 >5,000 mg/kg (rabbit)

Sensitization

Skin: (rabbit, slightly irritating)

Eye: (rabbit, slightly irritating)

**Repeated Dose Toxicity:** 2 yrs, Inhalation, NOAEL .19, (rat, male/female, 6hrs/day, 5days/week) Irritation to lungs and nasal cavity

**Chronic Toxicity/ Carcinogenicity:** 6.3 mg/m (high level of exposure, 2years, 6hrs/day, 5days/week) Lung tumors observed.

**Developmental Toxicity:** rat, female, 6hrs/day, 12 mg/m<sup>3</sup>, days 6-15 (gestation period); 4 mg/m<sup>3</sup> (maternal/fetotoxicity)

**Genetic Toxicity In vitro:** Inconclusive, In vitro studies were negative/positive, salmonella typhimurium

### Acute Toxicity for Hydrocarbon Blend:

Dimethyl Ether: Inhalation: LC50 308.5 mg/L (rat) 4 h

Isobutane: Inhalation: LC50 658 mg/L (rat) 4 h

Propane: LC50 Dermal: 658 mg/kg (rat)

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## 12. ECOLOGICAL INFORMATION

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### Ecological Data for Polymeric MDI:

Biodegradation: Expected to have a short half-life

Bioaccumulation: Oncorhynchus mykiss (rainbow trout), 112 day exposure, <1 BCF. Does not bioaccumulate.

Acute Toxicity to Fish: LC0: >1000mg/l brachydanio rerio (zebra fish), 96 hour exposure

Acute Toxicity to Aquatic Invertebrates: EC50: >1000 mg/l Daphnia magna (water flea), 24h

Toxicity to Microorganisms: EC50: >100 mg/l, activated sludge, 3h

### Ecological Data for MDI

Acute Toxicity to Fish: LC50: >500mg/l brachydanio rerio (zebra fish), 24h

Acute Toxicity to Aquatic Invertebrates: EC50: >500 mg/l Daphnia magna (water flea), 24h

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

### Ecological Data for Dimethyl ether:

LC50/EC50/EL50 >100mg/L in the most sensitive species

Acute Toxicity to Fish: LC50 >3677 mg/L (gold fish), 96h

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### 13. DISPOSAL CONSIDERATIONS

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**Do not dispose product into drains, sewers, waterways, groundwater, or soil.**

1. DO NOT INCINERATE CONTAINERS

2. Before disposing of containers, relieve container of any remaining foam and pressure. Allow product to fully cure before disposing. Never discard in a liquid state. Always wear safety glasses or goggles, nitrile gloves, and clothing that protects against dermal exposure when disposing of product.

3. DISPOSE OF EMPTY CONTAINERS ACCORDING TO APPLICABLE FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS. CHECK WITH YOUR LOCAL WASTE DISPOSAL SERVICE FOR GUIDANCE.

Regulations may vary in different locations. The information only pertains to the product as shipped in its intended condition as described in the MSDS section: Composition.

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### 14. TRANSPORTATION

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#### Shipping Information

#### **Containers 1000 cu. cm. (1 liter) or Less**

<i>Ground</i>	Consumer Commodity ORM-D (On Shipper Carton)  Consumer Commodity Polyurethane Foam Sealant HC (On Shipping Document)
<i>Air</i>	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY Packing Instruction (Cargo & Passenger) 203
<i>Water</i>	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY
<i>Note</i>	Emergency Response Guide Numbers – Consumer Commodity #171, for Aerosols

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### 15. REGULATORY

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#### OSHA Hazcom Standard Rating:

Hazardous

#### WHMIS Classification:

A  
D2B

#### Toxic Substances Control Act (TSCA)/Domestic Substances List (DSL):

All ingredients are listed on the TSCA inventory, as well as the Canadian Domestic Substances List.

#### SARA Title III: Section 311/312:

Acute Health Hazard, Chronic Health Hazard, Fire Hazard, Reactive Hazard, Sudden Release of Pressure Hazard

#### SARA Title III: Section 313

Contains Diphenylmethane diisocyanate (CAS #101-68-8) and Diphenylmethane diisocyanate, Isomers and homologues (CAS #9016-87-9) which are subject to the reporting requirements of SARA Title III. Applicability must be determined by end user.

State Right-To Know Information: Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Chemical Name (common names)</u>	<u>CAS Number</u>	<u>Percentage</u>
Diphenylmethane diisocyanate	101-68-8	5% to 10 %
Isobutane	75-28-5	5% to 10 %
Propane	115-10-6	1% to 5 %
Dimethyl ether	74-98-6	5% to 10 %

California Proposition 65:

Based on information currently available, this product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65.

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## 16. OTHER

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**NFPA:** Health Hazard 2; Flammability 3; Reactivity 1  
**HMIS:** Health Hazard 2; Flammability 3; Physical Hazard 1

The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, of merchantability or fitness for a particular use are made hereunder with respect to this information or the product to which information refers.

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**LAST REVISION: October 2010-4 Product Management  
A16186**



SDS Manual

Tubing



## SDS Manual

# Tubing

- EPDM Tubing 467
- Thermo-Shrink (Tubing and End Caps) 473





## Article Information Sheet

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<b>Document Group:</b>	34-7684-3	<b>Version Number:</b>	3.06
<b>Issue Date:</b>	05/02/19	<b>Supersedes Date:</b>	06/09/17

### SECTION 1: Identification

#### 1.1. Product identifier

Black EPDM Tubing (on plastic core) ==>(LH-A100-1762-5)

#### Product Identification Numbers

80-6105-9742-1, 80-6105-9752-0, 80-6105-9755-3, 80-6105-9759-5, 80-6105-9760-3, 80-6105-9763-7, 80-6107-3565-8, 80-6107-4803-2, 80-6108-3339-6, 80-6108-3644-9, 80-6109-2831-1, 80-6112-1759-9, 80-6116-1725-1

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical

#### 1.3. Supplier’s details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Black EPDM tube	Trade Secret*	100

\*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:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## SECTION 5: Fire-fighting measures

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

<b>General Physical Form:</b>	Solid
<b>Odor, Color, Grade:</b>	Black EPDM tube
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	No flash point
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	<i>No Data Available</i>
<b>Specific Gravity</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>Not Applicable</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>Not Applicable</i>
<b>Molecular weight</b>	<i>Not Applicable</i>

**SECTION 10: Stability and reactivity**

This material is considered to be non reactive under normal use conditions.

**SECTION 11: Toxicological information****Inhalation:**

No health effects are expected

**Skin Contact:**

No health effects are expected

**Eye Contact:**

No health effects are expected

**Ingestion:**

No health effects are expected

**Additional Information:**

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

**SECTION 12: Ecological information**

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

### SECTION 13: Disposal considerations

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

### 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

#### Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.

### SECTION 16: Other information

#### NFPA Hazard Classification

Health: 0 Flammability: 1 Instability: 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.

<b>Document Group:</b>	34-7684-3	<b>Version Number:</b>	3.06
<b>Issue Date:</b>	05/02/19	<b>Supersedes Date:</b>	06/09/17

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<b>Document Group:</b>	34-7684-3	<b>Version Number:</b>	3.01
<b>Issue Date:</b>	09/01/15	<b>Supersedes Date:</b>	07/14/15

### SECTION 1: Identification

#### 1.1. Product identifier

Black EPDM Tubing (on plastic core)

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Electrical Markets Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Black EPDM tube	Mixture	100
PHENOL, 2-(2H-BENZOTRIAZOL-2-YL)-4,6-BIS(1,1-DIMETHYLPROPYL)-	25973-55-1	0 - 0.3

Melting point	No Data Available
Boiling Point	Not Applicable
Flash Point	No flash point
Evaporation rate	Not Applicable
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Density	No Data Available
Specific Gravity	No Data Available
Solubility in Water	Not Applicable
Solubility- non-water	Not Applicable
Partition coefficient: n-octanol/ water	Not Applicable
Autoignition temperature	Not Applicable
Decomposition temperature	No Data Available
Viscosity	Not Applicable

## SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

## SECTION 13: Disposal considerations

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

## SECTION 14: Transport Information



**SECTION IV - HEALTH HAZARD INFORMATION**

EFFECTS OF OVEREXPOSURE - Conditions to Avoid	None known
THRESHOLD LIMIT VALUE	N/E
PRIMARY ROUTES OF ENTRY Inhalation <input type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (specify)	
EMERGENCY FIRST AID PROCEDURES	
SKIN CONTACT:	See other precautions at bottom of page.
EYE CONTACT:	None
INGESTION:	Consult physician

**SECTION V - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID	Direct exposure to flame or excessive heat.
	STABLE	X		
INCOMPATIBILITY (materials to avoid)				
None				
HAZARDOUS DECOMPOSITION PRODUCTS:				
CO <sub>2</sub> , CO, methyl and ethyl chlorocarbons, hydrogen chloride, and hydrogen bromide.				
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID	None
	WILL NOT OCCUR	X		

**SECTION VI - SPILL AND LEAK PROCEDURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Sweep up to prevent entanglement or tripping.
WASTE DISPOSAL METHOD	Landfill or incinerate in equipment designed to handle hydrogen chloride as a product of combustion.
Follow local, state and federal guidelines.	
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs)	N/A
RCRA HAZARDOUS WASTE NO. (40CFR 261.33)	N/A
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water)	N/A
<sup>a</sup> Theoretical ____ lb/gal	N/A
<sup>b</sup> Analytical ____ lb/gal	N/A

**SECTION VII - PERSONAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (specify type)	None normally required.			
VENTILATION	LOCAL EXHAUST (Specify Rate)	None normally required.	SPECIAL	N/A
	MECHANICAL (General) (Specify Rate)	Recommended in closed areas.	OTHER	N/A
PROTECTIVE GLOVES (specify type)	None	EYE PROTECTION (specify type)	Per company policy.	
OTHER PROTECTIVE EQUIPMENT	N/A			

**SECTION VIII - SPECIAL PRECAUTIONS**

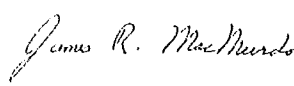
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Avoid burning in flame. Avoid storage above 100°F due to recovery of expanded tubing.
OTHER PRECAUTIONS	The adhesive in molten state can cause skin burns. Immediately immerse affected area in cold clean water. Do not attempt to pull away solidified material adhering to skin. Seek medical attention.

**SECTION IX - ADDITIONAL INFORMATION**

None
------

N/A = Not Applicable, N.E. = None Established

**THIS MATERIAL SAFETY DATA SHEET PREPARED BY:**

NAME	James R. MacMurdo	SIGNATURE	
TITLE	Manager, Corporate Quality Systems		
DATE	01/23/2012		





SDS Manual

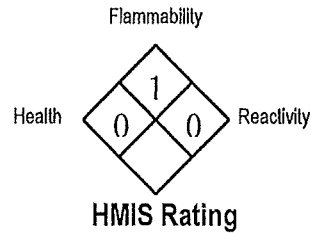
# Wire Connector



## SDS Manual

# Wire Connector

- PowerPlug Fluorescent Luminaire Disconnect  
477
- Term-A-Nut Pigtail wire Connectors 480



## MATERIAL SAFETY DATA SHEET

### GENERAL INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label) <b>PowerPlug® fluorescent luminaire-disconnect – all models</b>		CATALOG NUMBER 30-102x, 30-372x, 30-082, 30-083, 30-352x, 30-682, 30-683
MANUFACTURER'S NAME <b>IDEAL INDUSTRIES, INC.</b>		EMERGENCY TELEPHONE NO. <b>(815) 895-5181</b>
ADDRESS (Number, Street, City, State, Zip Code) <b>Becker Place, Sycamore, IL 60178</b>		
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None		
CHEMICAL DESCRIPTION Polyamide 6/6 and phosphor bronze	FORMULA Proprietary	

### SECTION I - INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)*	Listed as a carcinogen in NTP, IARC or OSHA 1910(z) (specify)
32131-17-2	<60	Polyhexymethylene Adipamide	No
7440-50-8	<45	Phosphor Bronze Alloy	No
7440-31-5			
7440-48-4			
7440-66-6			
7440-02-0			

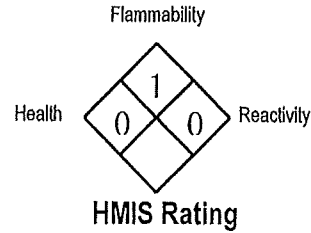
### SECTION II - PHYSICAL DATA

BOILING POINT N/A °F °C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) N/A	PERCENT VOLATILE BY VOLUME (%) <1
SOLUBILITY IN WATER Insoluble	pH = N/A	PERCENT SOLID BY WEIGHT (%) ~100
APPEARANCE AND ODOR	IS MATERIAL: LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GEL GAS PASTE POWDER	

### SECTION III - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT None	method used C.O.C.	FLAMMABLE LIMITS	LEL None	UEL None
EXTINGUISHING MEDIA None Normally Required				
SPECIAL FIRE FIGHTING PROCEDURES Use extinguishing media for surrounding materials.				
UNUSUAL FIRE AND EXPLOSION HAZARDS Use self-contained breathing apparatus with full face shield.				
Polyhexymethylene adipamide material is a UL listed 94 V-2 flame rated product.				

\* None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200



## MATERIAL SAFETY DATA SHEET

### GENERAL INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label) Twister® Al/Cu Wire Connector	CATALOG NUMBER 30-065, -165, -265, -365
MANUFACTURER'S NAME IDEAL INDUSTRIES, INC.	EMERGENCY TELEPHONE NO. (815) 895-5181
ADDRESS (Number, Street, City, State, Zip Code) Becker Place, Sycamore, IL 60178	
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None	
CHEMICAL DESCRIPTION Polypropylene, Zinc Plated Steel, Antioxidant Grease	FORMULA Proprietary

#### SECTION I - INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)*	Listed as a carcinogen in NTP, IARC or OSHA 1910(z) (specify)
9003-07-0	<60	Polypropylene	No
9003-29-6	<15	Polybutene	No
7440-66-6	<6	Zinc Dust	No
7631-86-9	<5	Silicon Dioxide	No
7439-89-6	<30	Steel	No
1309-64-4	<2	Antimony Trioxide	No

#### SECTION II - PHYSICAL DATA

BOILING POINT N/A °F °C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) N/A	PERCENT VOLATILE BY VOLUME (%) <10
SOLUBILITY IN WATER Insoluble	pH = N/A	PERCENT SOLID BY WEIGHT (%) ~100
APPEARANCE AND ODOR	IS MATERIAL: LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GEL GAS PASTE POWDER	

#### SECTION III - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT None	method used C.O.C.	FLAMMABLE LIMITS	LEL None	UEL None
EXTINGUISHING MEDIA None Normally Required				
SPECIAL FIRE FIGHTING PROCEDURES Use extinguishing media for surrounding materials				
UNUSUAL FIRE AND EXPLOSION HAZARDS Use self-contained breathing apparatus with full face shield				
Polypropylene material is a UL listed 94 V-2 flame rated product.				

\* None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200

### SECTION IV - HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE - Conditions to Avoid	
This product has not been evaluated as a whole. Constituents are either steel or are bound in a polymer matrix and potential for hazardous exposure is minimal. However, some fumes may be released upon heating and the user must take the necessary precautions (ventilation, personal protective equipment, etc.) to protect employees from exposure (see Section 8 - Special Precautions)	
Hazardous Component: Antimony Trioxide OSHA PEL: 0.5 mg/m <sup>3</sup> as Sb ACGIH PEL: 0.5 mg/m <sup>3</sup> as Sb	
THRESHOLD LIMIT VALUE	
N/E	
PRIMARY ROUTES OF ENTRY Inhalation <input type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (specify) Ingestion	
EMERGENCY FIRST AID PROCEDURES	
SKIN CONTACT:	See other precautions at bottom of page.
EYE CONTACT:	
None	
INGESTION:	
Consult Physician	

### SECTION V - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (materials to avoid)			
Strong Oxidizing agents			
HAZARDOUS DECOMPOSITION PRODUCTS:			
Oxides of Carbon			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VI - SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	
Sweep up to prevent tripping	
WASTE DISPOSAL METHOD	
Landfill or incinerate in accordance with local, state and federal guidelines	
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs)	
N/A	
RCRA HAZARDOUS WASTE NO. (40CFR 261.33)	
N/A	
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water)	
N/A	
<sup>a</sup> Theoretical _____ lb/gal	NA
<sup>b</sup> Analytical _____ lb/gal	N/A

### SECTION VII - PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)			
None normally required			
VENTILATION	LOCAL EXHAUST (Specify Rate)	None normally required.	SPECIAL N/A
	MECHANICAL (General) (Specify Rate)	Recommended in closed areas.	OTHER N/A
PROTECTIVE GLOVES (specify type)		EYE PROTECTION (specify type)	
		Per company policy	
OTHER PROTECTIVE EQUIPMENT			
None			

### SECTION VIII - SPECIAL PRECAUTIONS

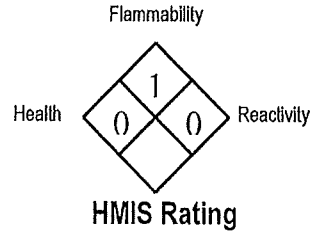
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	
Avoid excessive heat or open flames	
OTHER PRECAUTIONS	
None	

### SECTION IX - ADDITIONAL INFORMATION

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: CAS # 7440-66-6, Zinc Dust, 5.7%, CAS # 1309-64-4, Antimony Trioxide, 1.4%	
Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer: Antimony Trioxide	

N/A = Not Applicable, N.E. = None Established

THIS MATERIAL SAFETY DATA SHEET PREPARED BY:	
NAME James R. MacMurdo	SIGNATURE  <i>James R. MacMurdo</i>
TITLE Director, Corporate QA	
DATE 02/27/2012	



## MATERIAL SAFETY DATA SHEET

### GENERAL INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label) <b>Term-a-Nut® pigtail wire connectors - all models</b>	CATALOG NUMBER 30-3070,30-3071,30-3072,30-3170,30-3171,30-3172, et al
MANUFACTURER'S NAME <b>IDEAL INDUSTRIES, INC.</b>	EMERGENCY TELEPHONE NO. <b>(815) 895-5181</b>
ADDRESS (Number, Street, City, State, Zip Code) <b>Becker Place, Sycamore, IL 60178</b>	
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None	
CHEMICAL DESCRIPTION Polypropylene, Zinc Plated Steel, PVC insulated wire, Brass terminations	FORMULA Proprietary

#### SECTION I - INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)*	Listed as a carcinogen in NTP, IARC or OSHA 1910(z) (specify)
9003-07-0	<20	Polypropylene	No
7439-89-6	<10	Steel	No
1309-64-4	<1	Antimony Trioxide	No
7440-66-6	<1	Zinc	No
9002-86-2	<20	Polyvinyl Chloride	No
12597-71-6	<20	Brass	No
7440-50-8	<50	Copper	No

#### SECTION II - PHYSICAL DATA

BOILING POINT N/A °F °C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) N/A	PERCENT VOLATILE BY VOLUME (%) <1
SOLUBILITY IN WATER Insoluble	pH = N/A	PERCENT SOLID BY WEIGHT (%) ~100
APPEARANCE AND ODOR	IS MATERIAL: LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GEL GAS <input type="checkbox"/> PASTE <input type="checkbox"/> POWDER	

#### SECTION III - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT None method used C.O.C.	FLAMMABLE LIMITS	LEL None	UEL None
EXTINGUISHING MEDIA None Normally Required			
SPECIAL FIRE FIGHTING PROCEDURES Use extinguishing media for surrounding materials.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Use self-contained breathing apparatus with full face shield. Polypropylene material is a UL listed 94 V-2 flame rated product.			

\* None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200

**SECTION IV - HEALTH HAZARD INFORMATION**

EFFECTS OF OVEREXPOSURE - Conditions to Avoid  
 This product has not been evaluated as a whole. Constituents are either steel or are bound in a polymer matrix and potential for hazardous exposure is minimal. However, some fumes may be released upon heating and the user must take the necessary precautions (ventilation, personal protective equipment, etc.) to protect employees from exposure (see Section 8 - Special Precautions)  
 Hazardous Component: Antimony Trioxide OSHA PEL: 0.5 mg/m<sup>3</sup> as Sb ACGIH PEL: 0.5 mg/m<sup>3</sup> as Sb

THRESHOLD LIMIT VALUE N/E

PRIMARY ROUTES OF ENTRY Inhalation  Skin Contact  Other (specify) Ingestion

EMERGENCY FIRST AID PROCEDURES  
 SKIN CONTACT: See other precautions at bottom of page.  
 EYE CONTACT: None

INGESTION: Consult Physician

**SECTION V - REACTIVITY DATA**

STABILITY	UNSTABLE	X	CONDITIONS TO AVOID <span style="float:right">Direct exposure to flame or excessive heat.</span>
	STABLE		
INCOMPATIBILITY (materials to avoid) <span style="float:right">Strong Oxidizing agents</span>			
HAZARDOUS DECOMPOSITION PRODUCTS: <span style="float:right">Oxides of Carbon</span>			
HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID <span style="float:right">None</span>
	WILL NOT OCCUR		

**SECTION VI - SPILL AND LEAK PROCEDURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED  
Sweep up to prevent tripping

WASTE DISPOSAL METHOD  
Landfill or incinerate in accordance with local, state and federal guidelines.

CERCLA (Superfund) REPORTABLE QUANTITY (in lbs) N/A

RCRA HAZARDOUS WASTE NO. (40CFR 261.33) N/A

VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water) N/A

<sup>g</sup>Theoretical \_\_\_\_\_ lb/gal N/A <sup>p</sup>Analytical \_\_\_\_\_ lb/gal N/A

**SECTION VII - PERSONAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (specify type) None normally required.

VENTILATION	LOCAL EXHAUST (Specify Rate)	None normally required.	SPECIAL	N/A
	MECHANICAL (General) (Specify Rate)	Recommended in closed areas.	OTHER	N/A

PROTECTIVE GLOVES (specify type) EYE PROTECTION (specify type)  
Per company policy

OTHER PROTECTIVE EQUIPMENT None

**SECTION VIII - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING  
Avoid excessive heat or open flames.

OTHER PRECAUTIONS None

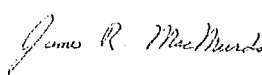
**SECTION IX - ADDITIONAL INFORMATION**

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA: CAS # 1309-64-4, Antimony Trioxide, 1.4%

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer: Antimony Trioxide

N/A = Not Applicable, N.E. = None Established

**THIS MATERIAL SAFETY DATA SHEET PREPARED BY:**

NAME <span style="float:right">James R. MacMurdo</span>	SIGNATURE
TITLE <span style="float:right">Director, Corporate QA</span>	
DATE: <span style="float:right">02/27/2012</span>	



SDS Manual

Wire Ties

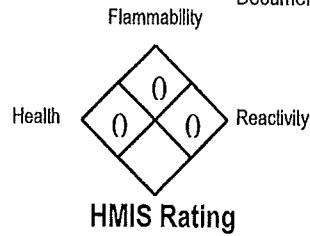




SDS Manual

# Wire Ties

- Cable Ties 484



# MATERIAL SAFETY DATA SHEET

## GENERAL INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label) Cable Ties		CATALOG NUMBER All "15", All Powr-Tie™ Series
MANUFACTURER'S NAME IDEAL INDUSTRIES, INC.		EMERGENCY TELEPHONE NO. (815) 895-5181
ADDRESS (Number, Street, City, State, Zip Code) Becker Place, Sycamore, IL 60178		
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None		
CHEMICAL DESCRIPTION Nylon 66 - Polyhexamethylene adipamide	FORMULA [NH(CH <sub>2</sub> ) <sub>6</sub> NHCO(CH <sub>2</sub> ) <sub>4</sub> CO] <sub>n</sub>	

### SECTION I - INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)*	Listed as a carcinogen in NTP, IARC or OSHA 1910(z) (specify)
32131-17-2	100	Nylon 6/6	No

### SECTION II - PHYSICAL DATA

BOILING POINT °F 250°C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) N/A	PERCENT VOLATILE BY VOLUME (%) None
SOLUBILITY IN WATER None	pH = N/A	PERCENT SOLID BY WEIGHT (%) ~100
APPEARANCE AND ODOR Solid plastic appearance with no odor	IS MATERIAL: LIQUID <input checked="" type="radio"/> SOLID <input type="radio"/> GEL GAS <input type="radio"/> PASTE <input type="radio"/> POWDER	

### SECTION III - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT N/A	method used C.C.C.	FLAMMABLE LIMITS	LEL N/E	UEL N/E
EXTINGUISHING MEDIA Water, Carbon dioxide, Foam, Dry Chemicals				
SPECIAL FIRE FIGHTING PROCEDURES None				
UNUSUAL FIRE AND EXPLOSION HAZARDS Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.				

\* None of the chemical raw materials contained in this formulation are considered hazardous under the Federal Hazards Communication Standard 29 C. F. R 1910.1200

**SECTION IV - HEALTH HAZARD INFORMATION**

EFFECTS OF OVEREXPOSURE - Conditions to Avoid	No chronic effects known
THRESHOLD LIMIT VALUE	N/A
PRIMARY ROUTES OF ENTRY Inhalation <input type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (specify)	Molten polymer causes thermal burns.
EMERGENCY FIRST AID PROCEDURES	
SKIN CONTACT:	For molten polymer, cool rapidly with water. Do not attempt to remove from skin. Obtain medical attention for burn.
EYE CONTACT:	Flush with water
INGESTION:	Flush with water for 15 minutes

**SECTION V - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid heating above 340°C.
INCOMPATIBILITY (materials to avoid)			
Avoid strong acids and oxidizing agents.			
HAZARDOUS DECOMPOSITION PRODUCTS:			
Ammonia, carbon dioxide, hydrogen cyanide, aldehydes			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	None

**SECTION VI - SPILL AND LEAK PROCEDURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Wipe up, shovel or vacuum spilled material.
WASTE DISPOSAL METHOD	Comply with Federal, state and local regulations for solid landfill.
CERCLA (Superfund) REPORTABLE QUANTITY (in lbs)	None Required
RCRA HAZARDOUS WASTE NO. (40CFR 261.33)	None Required
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water)	None
<sup>a</sup> Theoretical _____ lb/gal	N/A
<sup>b</sup> Analytical _____ lb/gal	N/A

**SECTION VII - PERSONAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION (specify type)			
None normally required			
VENTILATION	LOCAL EXHAUST (Specify Rate)	None	SPECIAL
	MECHANICAL (General) (Specify Rate)	recommended in closed areas	None
PROTECTIVE GLOVES (specify type)	None	EYE PROTECTION (specify type)	Safety glasses or splash goggles
OTHER PROTECTIVE EQUIPMENT			
None normally required			

**SECTION VIII - SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Store in cool dry place. Keep containers tightly closed to prevent moisture absorption and contamination.
OTHER PRECAUTIONS	None normally required

**SECTION IX - ADDITIONAL INFORMATION**

None.
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N/A = Not Applicable, N.E. = None Established

THIS MATERIAL SAFETY DATA SHEET PREPARED BY:

NAME	Darryl L. Docter	<i>Darryl L. Docter</i>
TITLE	Mgr., Quality Assurance	
DATE	4/4/14	