# SAFETY DATA SHEET

**AVB Silicone Sealant**

## 1. PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>IDENTIFICATION of the SUBSTANCE or PREPARATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE NAME (AS LABELED):</td>
<td>AVB Silicone Sealant</td>
</tr>
<tr>
<td>PRODUCT DESCRIPTION:</td>
<td>Silicone Sealant</td>
</tr>
<tr>
<td>CHEMICAL NAME/CLASS:</td>
<td>Silicone Sealant</td>
</tr>
<tr>
<td>SYNONYMS:</td>
<td>Air Vapor Barrier Silicone</td>
</tr>
<tr>
<td>RELEVANT USE:</td>
<td>Silicone Sealant</td>
</tr>
<tr>
<td>USES ADVISED AGAINST:</td>
<td>Other Than Relevant Use</td>
</tr>
</tbody>
</table>

| COMPANY/UNDERTAKING IDENTIFICATION:          |  |
| SUPPLIER/MANUFACTURER'S NAME:                | Pecora Corporation |
| ADDRESS:                                     | 165 Wambold Road, Harleysville, PA 19438 |
| EMERGENCY PHONE:                             | 800-424-9300 (CHEMTREC, 24-hours) |
| BUSINESS PHONE:                              | 215-723-6051 (Mon–Fri, 8 AM–5 PM ET) |

| PREPARATION DATE:                            | February 26, 2013 |
| REVISION DATE:                               | February 28, 2016 |

This product is sold for commercial use. This SDS has been developed to address safety concerns of those individuals working with bulk quantities of this material, as well as those of potential users of this product in industrial/occupational settings. ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, and Canadian WHMIS [Controlled Products Regulations] and the Global Harmonization Standard required information is included in appropriate sections based on the U.S. ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

## 2. HAZARD IDENTIFICATION

**GLOBAL HARMONIZATION LABELING AND CLASSIFICATION:** This product has been classified per GHS Standards.

- **Classification:** Acute Oral Toxicity Cat. 5, Acute Skin Toxicity Cat. 5, Skin Sensitization Cat. 1, Skin Irritation Cat. 3, Eye Irritation Cat. 3, Aquatic Acute Toxicity Cat. 3, Aquatic Chronic Toxicity Cat. 3
- **Signal Word:** Warning
- **Precautionary Statement Codes:** P261, P264, P272, P273, P280, P302 + P352, P321, P333 + P313, P313, P362 + P364, P321, P403, P501
- **Hazard Statement Codes:** H303 + H313, H316 + H320, H317, H412
- **Hazard Symbols/Pictogram:** GHS08

**EMERGENCY OVERVIEW:**

- **PHYSICAL DESCRIPTION:** This product is a smooth paste with a mild, slightly solvent odor that comes in various colors.
- **HEALTH HAZARDS:** CAUTION! May cause mild eye, and skin irritation, especially if exposure is prolonged. May be harmful if ingested. May cause skin sensitization in susceptible individuals.
- **FLAMMABILITY HAZARD:** This product is combustible and can ignite if exposed to high temperature or direct flame.
- **REACTIVITY HAZARD:** This product is not reactive.
- **ENVIRONMENTAL HAZARD:** This product has not been tested for environmental impact. This product contains a compound that can cause chronic aquatic toxicity.

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS®)**

<table>
<thead>
<tr>
<th>Health</th>
<th>2*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

See Section 16 for definitions of ratings

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Minimal</td>
</tr>
<tr>
<td>1</td>
<td>Slight</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>Serious</td>
</tr>
<tr>
<td>4</td>
<td>Severe</td>
</tr>
<tr>
<td>*</td>
<td>Chronic</td>
</tr>
</tbody>
</table>

**HMIS®** is a registered trademark of the National Paint and Coatings Association.

**CANADIAN WHMIS CLASSIFICATION:** Class D2B. See Section 15 (Regulatory Information) for all classification details.

**U.S. OSHA REGULATORY STATUS:** This material has a classification under the Global Harmonization Standard, as applied under OSHA regulations, as given earlier in this Section.
3. MATERIAL IDENTIFICATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W %</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Silicone Polymer</td>
<td>20.0-40.0</td>
<td></td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Synthetic Calcium Carbonate</td>
<td>1317-65-3</td>
<td>20.0-40.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Precipitated Limestone</td>
<td>471-34-1</td>
<td>15.0-30.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Methyl tri(methylene ketoximo)</td>
<td>2294-54-9</td>
<td>1.0-8.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>556-67-2</td>
<td>1.0-5.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>1.0-3.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
</tbody>
</table>

Water and other components. Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitziers, and mutagens). Balance Classification: Not Applicable

See Section 16 for full text of classification

4. FIRST-AID MEASURES

PROTECTION OF FIRST AID RESPONDERS: Rescuers should not attempt to retrieve victims of exposure to this material without adequate personal protective equipment. Rescuers should be taken for medical attention, if necessary.

DESCRIPTION OF FIRST AID MEASURES: Remove victim(s) to fresh air, as quickly as possible. Only trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary. Remove and isolate contaminated clothing and shoes. Seek immediate medical attention. Take copy of label and SDS to physician or other health professional with victim(s).

INHALATION: If dusts of this material are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

SKIN EXPOSURE: If the material contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 20 minutes. Do not interrupt flushing. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.

EYE EXPOSURE: If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 20 minutes. Do not interrupt flushing.

INGESTION: If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING, unless directly by medical personnel. Have victim rinse mouth with water or give several cupsfuls of water, if conscious. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Dermatitis or other pre-existing skin disorders may be aggravated by exposure to this product.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: > 104°C (> 220°F) AUTOIGNITION: Unknown.

FLAMMABLE LIMITS IN AIR: Unknown.

EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use extinguishing material suitable to the surrounding fire, including foam, halon, carbon dioxide and dry chemical.

Unsuitable Extinguishing Media: None known.

PROTECTION OF FIREFIGHTERS:

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE: This product is combustible and can be ignited when exposed to its flashpoint. This product contains methylpolysiloxanes which will likely generate formaldehyde at approximately 150°C (300°F) and above, in atmospheres which contain oxygen. Not sensitive to mechanical impact under normal conditions. Not sensitive to static discharge under normal conditions. Closed containers may develop pressure and rupture in event of fire.
5. FIRE-FIGHTING MEASURES (Continued)
SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES
PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: An accidental release can result in a fire. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Eliminate any possible sources of ignition, and provide maximum explosion-proof ventilation. Use only non-sparking tools and equipment during the response. The atmosphere must be at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection.

PERSONAL PROTECTIVE EQUIPMENT: Responders should wear the level of protection appropriate to the type of chemical released, the amount of the material spilled, and the location where the incident has occurred.
Small Spills: For releases of 1 drum or less, Level D Protective Equipment (gloves, chemical resistant apron, boots, and eye protection) should be worn.
Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing and boots, hard hat, and Self-Contained Breathing Apparatus.

METHODS FOR CLEAN-UP AND CONTAINMENT:
All Spills: Access to the spill area should be restricted. Spread should be limited by gently covering the spill with polypads. Scrape up or pick-up spilled material, placing in suitable containers. Absorb any residual on appropriate material, such as sand. All contaminated absorbents and other materials should be placed in an appropriate container and seal. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). Dispose of recovered material and report spill per regulatory requirements. Remove all residue before decontamination of spill area. Clean spill area with soap and copious amounts of water.

ENVIRONMENTAL PRECAUTIONS: Minimize use of water to prevent environmental contamination. Prevent spill or rinsate from contaminating storm drains, sewers, soil or groundwater. Place all spill residues in a suitable container and seal. Do not discharge effluent containing this product into streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

OTHER INFORMATION: U.S. regulations may require reporting of spills of this material that reach surface waters if a sheen is formed. If necessary, the toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802.

REFERENCE TO OTHER SECTIONS: See information in Section 8 (Exposure Controls – Personal Protection) and Section 13 (Disposal Considerations) for additional information.

7. HANDLING and STORAGE
PRECAUTIONS FOR SAFE HANDLING: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat or drink while handling this material. Avoid contact with eyes, skin, and clothing. Avoid breathing fumes, dusts, vapors or mist. Do not taste or swallow. Use only with adequate ventilation. Keep away from heat and flame. In the event of a spill, follow practices indicated in Section 6: ACCIDENTAL RELEASE MEASURES.

CONDITIONS FOR SAFE STORAGE: This product is stable under ordinary conditions of handling, use and storage. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10: STABILITY AND REACTIVITY). Keep container tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. To prolong shelf life, store at temperatures below 26°C (80°F).

PRODUCT END USE: This product is used as a sealant. Follow all industry standards for use of this product.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:
Ventilation and Engineering Controls: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guiding</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate, Natural &amp; Synthetic</td>
<td>1317-68-3</td>
<td>OSHA PEL TWA</td>
<td>15 mg/m³ total dust</td>
</tr>
<tr>
<td></td>
<td>1317-68-3</td>
<td>NIOSH REL TWA</td>
<td>5 mg/m³ respirable fraction</td>
</tr>
<tr>
<td></td>
<td>1317-68-3</td>
<td></td>
<td>10 mg/m³ total dust</td>
</tr>
<tr>
<td></td>
<td>1317-68-3</td>
<td></td>
<td>5 mg/m³ respirable fraction</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>ACGIH TLV TWA</td>
<td>3.5 mg/m³ (inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td>1333-86-4</td>
<td>OSHA PEL TWA</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>1333-86-4</td>
<td>NIOSH REL TWA</td>
<td>3.5 mg/m³ (0.1 in the presence of PAHs, as PAHc: 10-hr TWA)</td>
</tr>
<tr>
<td></td>
<td>1333-86-4</td>
<td>DFG MAK TWA</td>
<td>As inhalable dust</td>
</tr>
<tr>
<td>Octamethylcyclotetrasloxane</td>
<td>556-67-2</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Methyl (methylyl ketoximo)</td>
<td>22984-54-9</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Silicone Polymer</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

NE = Not Established. See Section 16 for Definitions of Terms Used.
8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)


Eye/Face Protection: Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations and standards.
Skin Protection: Wear chemical impervious gloves (e.g., Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations and standards.
Body Protection: Use body protection appropriate for task (e.g., lab coat, coveralls, Tyvek suit). If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee’s feet may be exposed to electrical hazards, use foot protection, as described in appropriate regulations and standards.
Respiratory Protection: If vapors from this product are created during use, use appropriate respiratory protection. If necessary, use only respiratory protection authorized in appropriate regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under appropriate regulations and standards.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Smooth paste.
MOLECULAR WEIGHT: Mixture.
odor: Mildly solvent-like.
SOLUBILITY IN WATER: Insoluble.
VOC (less water and exempt): 80 g/L
FLASH POINT: >104°C (>220°F)
pH: Not available.
FLAMMABLE LIMITS (in air by volume, %): Lower: Not established; Upper: Not established.
COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.

HOW TO DETECT THIS SUBSTANCE (IDENTIFYING PROPERTIES): The appearance of this product may act as an identifying property in the event of an accidental release.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: Stable under normal circumstances of use and handling. Methylethyl Ketoxime is generated during curing.
CONDITIONS TO AVOID: Avoid contact with incompatible chemicals and exposure to extreme temperatures.
INCOMPATIBLE MATERIALS: This product is not compatible with strong acids and oxidizers and may have some compatibility with aluminum, ammonium salts and mercury/hydrogen mixtures, potassium chloride, nitrogen tetroxide, tetraniromethane, silver perchlorate, sulfur dichloride, sulfuric acid, uranium hexafluoride.
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Thermal decomposition of this product can generate dusts, irritating fumes, and toxic gases (e.g., calcium, carbon, nitrogen and silicone oxides, aldehydes, formaldehyde, various hydrocarbons).
Hydrolysis: Methylethyl ketoxime.
POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: This product is not expected to undergo hazardous polymerization, decomposition, condensation, or self-reactivity.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: The most significant routes of occupational exposure are inhalation and contact with skin and eyes.
The symptoms of exposure to this product are as follows:
Contact With Skin or Eyes: Contact may mildly irritate the skin and cause redness and discomfort. Prolonged or repeated skin contact may cause dermatitis (dry, red skin). Eye contact may cause redness, pain, and tearing. Skin contact may cause sensitization and allergic reaction in susceptible individuals. Symptoms may include redness, itching and rash.
Skin Absorption: Prolonged skin contact may cause adverse systemic effect by skin absorption as described under ingestion or inhalation, as well as sensitization and allergic reaction to the skin.
Ingestion: If the product is swallowed, it can irritate the mouth, throat, and other tissues of the gastro-intestinal system and may cause nausea, vomiting, and diarrhea. Ingestion of large amounts may be harmful and cause systemic toxicity.
Inhalation: Exposure to vapors of this product generated during curing, or dusts of this product generated during use after curing may mildly irritate the respiratory tract and cause coughing and sneezing. Vapors or fumes when used in an enclosed space, if heated or during curing may cause irritation of the respiratory system and. Symptoms include nose irritation, dry or sore or burning throat, runny nose, shortness of breath.
Injection: Accidental injection of this product (e.g. puncture with a contaminated object) may cause burning, redness, and swelling in addition to the wound.
TARGET ORGANS: Acute: Skin, eyes. Chronic: Skin.
CHRONIC EFFECTS: Prolonged or repeated skin contact may cause dermatitis (dry, red skin), sensitization to the skin.
11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA: There are currently no toxicity data available for this product; the following toxicology information is available for components greater than 1% in concentration.

CALCIUM CARBONATE, NATURAL:
TDLo (Intravenous-Rat) 30 mg/kg: Vascular: BP lowering not characterized in autonomic section; Lungs, Thorax, or Respiration: changes in lung weight; Blood: other changes
TCLo (Inhalation-Rat) 84 mg/m^3/4 hours/40 weekdays: Lungs, Thorax, or Respiration:
fibrosis (interstitial); Liver: other changes; Kidney/Ureter/Bladder: other changes
TCLo (Inhalation-Rat) 250 mg/m^3/24 hours/24 weekdays: Lungs, Thorax, or Respiration:
fibrosis, focal (pneumomediastinum)

CALCIUM CARBONATE, SYNTHETIC:
Standard Draize Test (Skin-Rabbit) 500 mg/24 hours: Moderate
Standard Draize Test (Eye-Rabbit) 750 µg/24 hours: Severe
TDLo (Oral-Human) 4.08 g/m^3/30 days/intermittent: Vascular: BP elevation not characterized in autonomic section; Gastrointestinal: changes in structure or function of endocrine pancreas; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation
TCLo (Oral-Rat) 6450 mg/kg
TDLo (Oral-Rat) 60 g/m^3: Gastrointestinal: hypermotility, diarrhea, other changes
TDLo (Oral-Rat) 10 mg/kg: Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

OCTAMETHYLCYCLOTETRASILXANE:

OCTAMETHYLCYCLOTETRASILXANE (continued):
TCLo (Inhalation-Rat) 700 ppm/6 hours/3 days: interim: Endocrine: estrogenic; Reproductive: Maternal Effects: uterus, cervix, vagina; Related to Chronic Data: changes in uterine weight
TCLo (Inhalation-Rat) 700 ppm/35 days: interim: Endocrine: estrogenic; Reproductive: Maternal Effects: oogenesis, ovaries, fallopian tubes
TCLo (Inhalation-Rat) 698 ppm/6 hours/47 days: interim: Endocrine: changes in adrenal weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain
TCLo (Inhalation-Rat) 700 ppm/6 hours/3 days: interim: Nutritional and Gross Metabolic: weight loss or decreased weight gain
TCLo (Inhalation-Rat) 700 ppm/6 hours/84 days/intermittent: Related to Chronic Data: death
TCLo (Inhalation-Rat) 700 ppm/6 hours/84 days/intermittent: Behavioral: food intake (animal); Nutritional and Gross Metabolic: weight loss or decreased weight gain
TCLo (Inhalation-Rat) 700 ppm/6 hours/1 week: interim: Kidney/Ureter/Bladder: changes in kidney weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain
TCLo (Inhalation-Rat) 700 ppm/6 hours/70 days: interim: Liver: changes in liver weight
TCLo (Inhalation-Rat) 700 ppm/6 hours/70 days: interim: Endocrine: changes in pituitary weight
TCLo (Inhalation-Rat) 700 ppm/6 hours/96 days: intermittent: Liver: changes in liver weight
TCLo (Inhalation-Rat) 700 ppm/6 hours/6 days-intermittent: Lungs, Thorax, or Respiration: other changes
TCLo (Inhalation-Rat) 696 ppm/6 days-intermittent: Related to Chronic Data: changes in ovarian weight
TCLo (Inhalation-Rat) 700 ppm: male 70 days pre-mating female 70 days pre-mating: 3 days post-ovulation; Effects on Newborn: live birth index (measured after birth)
TCLo (Inhalation-Rat) 301 ppm: female 28 days pre-mating 19 days after conception
Reproductive: Maternal Effects: oogenesis
TCLo (Inhalation-Rat) 503 ppm: female 28 days pre-mating 19 days after conception
Reproductive: Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 698 ppm: female 28 days pre-mating 19 days after conception
Reproductive: Maternal Effects: oogenesis; Reproductive: Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: Toxicity except death (e.g., stunted fetus)
TCLo (Inhalation-Rat) 700 ppm: female 3 days pre-mating 3 days after conception
Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death
TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)

CARCINOGENIC POTENTIAL: The following table summarizes the carcinogenicity listing for the components of this product. The "NO" indicates that the substance is not considered to be or suspected to be a carcinogen by the listed agency, see section 16 for definitions of other ratings.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EPA</th>
<th>IARC</th>
<th>NTP</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (Natural &amp; Synthetic)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>No</td>
<td>2B</td>
<td>No</td>
<td>Ca</td>
<td>A3</td>
<td>No</td>
<td>Yes (airborne, unbound particles of respirable size)</td>
</tr>
</tbody>
</table>

IARC Group 2B: Possibly carcinogenic to humans. NIOSH-Ca: Potential occupational carcinogen, with no further categorization. ACGIH TLV-A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.
11. TOXICOLOGICAL INFORMATION (Continued):

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EPA</th>
<th>IARC</th>
<th>NTP</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl tris(methyl-2-oximino)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Proprietary Silicone Polymer</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**IRRITANCY OF PRODUCT:** This product may mildly irritate contaminated tissue, especially if contact is prolonged. Eye irritation may be more pronounced. Inhalation of fumes can cause irritation of the respiratory system.

**SENSITIZATION TO THE PRODUCT:** This product may cause skin sensitization and allergic reaction in susceptible individuals.

**TOXICOCHEMICAL SYNERGISTIC PRODUCTS:** None known.

**REPRODUCTIVE TOXICITY INFORMATION:** This product has not been tested for reproductive toxicity. The following information is available for some components.

- **Mutagenicity**: The components of this product are not reported to produce mutagenic effects in humans. Animal or microorganism data for components are as follows: Titanium dioxide was not mutagenic to Salmonella typhimurium TA1535, TA1537, TA1538, TA97, TA98 or TA100 or to Escherichia coli WP2, either in the presence or absence of an exogenous metabolic system from the livers of uninduced and Aroclor-induced rats, mice and Syrian hamsters. Positive results for Carbon Black have been obtained in somatic cells following live animal inhalation exposure.

- **Embryotoxicity**: The components of this product are not reported to produce embryotoxic effects in humans.

- **Teratogenicity**: The components of this product are not reported not expected to produce teratogenic effects in humans.

- **Reproductive Toxicity**: The components of this product are not reported to produce reproductive toxicity in humans.

**BIOCHEMICAL EXPOSURE INDICES (BEIs):** Currently, no BEI’s have been established for components.

12. ECOLOGICAL INFORMATION

**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.**

**MOBILITY:** This product has not been tested for mobility in soil.

**PERSISTENCE AND BIODEGRADABILITY:** This product has not been tested for persistence or biodegradability.

**BIO-ACCUMULATION POTENTIAL:** This product has not been tested for bio-accumulation potential. A BCF of 12,400 was measured for the Octamethylcyclotetrasiloxane component using fathead minnows which were exposed to a concentration of 0.5 µg/L of Octamethylcyclotetrasiloxane for approximately 28 days. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is very high.

**ECOTOXICITY:** This product has not been tested for aquatic or animal toxicity. The following data is available.

- **OCTAMETHYLCYCLOTETRASILOXANE:**
  - LC₅₀ (Oncorhynchus mykiss Rainbow trout) 14 days = 10 µg/L
  - LC₅₀ (Lepomis macrochirus Bluegill) 96 hours = >1000 mg/L
  - LC₅₀ (Brachydanio rerio Zebra danio) 96 hours = >500 mg/L

**OTHER ADVERSE EFFECTS:** This material is not expected to have any ozone depletion potential.

**ENVIRONMENTAL EXPOSURE CONTROLS:** Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

13. DISPOSAL CONSIDERATIONS

**PREPARING WASTES FOR DISPOSAL:** As supplied, this product would not be a hazardous waste as defined by U.S. federal regulation (40 CFR 261) if discarded or disposed. State and local regulations may differ from federal regulations. The generator of the waste is responsible for proper waste determination and management.

**U.S. EPA WASTE NUMBER:** Not applicable.

14. TRANSPORTATION INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION:** This product is NOT classified as Dangerous Goods, per U.S. DOT regulations, under 49 CFR 172.101.

**TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:** This product is NOT classified as Dangerous Goods, per regulations of Transport Canada.

**INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):** This product is NOT classified as dangerous goods, per the International Air Transport Association.

**INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):** This product is not classified as dangerous goods, per the International Maritime Organization.

15. REGULATORY INFORMATION

**U.S. REGULATIONS:**

- **U.S. SARA Reporting Requirements:** No components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

- **U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21):** ACUTE: Yes; CHRONIC: Yes; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No

- **U.S. TSCA Inventory Status:** All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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AVB Silicone Sealant Page 6 of 9 February 28, 2016
15. REGULATORY INFORMATION (Continued)

U.S. REGULATIONS (continued):

U.S. CERCLA Reportable Quantity (RQ): Not applicable.
U.S. Clean Air Act (CA 112r) Threshold Quantity (TQ): Not applicable.
Other U.S. Federal Regulations: Not applicable.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component is on the California Proposition 65 lists.

CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: The components of this product are listed on the DSL Inventory.
Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: Not applicable.
Canadian WHMIS Regulations: This product is classified as a Controlled Product, Hazard Class D2B (Immediate Acute Toxicity/Irritation & Sensitization) as per the Controlled Product Regulations.

MEXICAN REGULATIONS:

Mexican Workplace Regulations (NOM-018-STPS-2000): This product is not classified as hazardous.

16. OTHER INFORMATION

WARNINGS (per ANSI Z129.1): WARNING! COMBUSTIBLE LIQUID. MAY CAUSE EYE AND SKIN IRRITATION. MAY CAUSE SKIN SENSITIZATION AND ALLERGIC REACTION IN SUSCEPTIBLE INDIVIDUALS. CONTAINS COMPOUND THAT MAY CAUSE CHRONIC AQUATIC ADVERSE EFFECTS. Avoid contact with eyes, skin, and clothing. Avoid breathing fumes, dusts, vapors or mist. Do not taste or swallow. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. Keep away from heat and flame. Wear gloves, eye protection, respiratory protection, and appropriate body protection. FIRST-AID: In case of contact, immediately flush skin and eyes with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, do not induce vomiting. Get medical attention. IN CASE OF FIRE: Use water fog, foam, dry chemical, or CO₂. IN CASE OF SPILL: Absorb spilled product with poly pads or other suitable absorbing material. Place all spill residue in an appropriate container and seal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada.

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with the Global Harmonization Standard.

Classification: Acute Oral Toxicity Category 5, Acute Dermal Toxicity Category 5, Skin Irritation Category 3, Eye Irritation Category 2B, Skin Sensitization Sensitization Category 1B, Aquatic Acute Toxicity Category 3, Aquatic Chronic Toxicity Category 3

Signal Word: Warning


Precautionary Statements:


Response: P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P321: Specific treatment (remove from exposure and treat symptoms). Refer to other portions of precautionary text on this label, SDS or other product information sheets, as appropriate.

Storage: P403: Store in a well-ventilated place.

Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

Hazard Symbols/Pictograms: GHS08

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES: The information presented in this Material Safety Data Sheet is presented in good faith based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale.

All materials may present hazards and should be used with caution. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices or applicable federal, state, or local laws or regulations. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular use and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Bridging principles were used to classify this product.

REVISION DETAILS: February 2016: Up-date due to change in formulation.

DATE OF PRINTING: February 28, 2016
EMERGENCY RESPONSE INFORMATION

DEFINITIONS OF TERMS

A large number of definitions and acronyms appear on a SDS. Some of these, which are commonly used, are included below:

**KEY ACRONYMS**

CHEMTREC: Chemical Transportation Emergency Center, a 24-hour emergency information and/or emergency assistance responders.

OSHA: Occupational Safety and Health Administration.

**SMALL VOLUMES MATERIALS, IDENTIFICATION SYSTEM RISK HAZARDS (continued):**

**FLAMMABILITY HAZARD (continued):** Slight Hazard: Materials that are ignitable in air at 28°C (82°F) or less. This level represents a concentration from which one can escape within 30 minutes without suffering escape-preventing or permanent injury. Under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. This usually includes the following: Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 38°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and a boiling point at or above 70°C (160°F); Any liquid or gaseous material that is liquid under almost all conditions. Materials in this degree produce hazardous atmospheres with air. These are usually obtained in liquid form. Any material that can be ignited under almost all conditions. Materials in this degree produce hazardous atmospheres with air. These are usually obtained in liquid form.

**FLAMMABILITY HAZARD (continued):** Slight Hazard: Materials that are ignitable in air at 28°C (82°F) or less. This level represents a concentration from which one can escape within 30 minutes without suffering escape-preventing or permanent injury. Under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. This usually includes the following: Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 38°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and a boiling point at or above 70°C (160°F); Any liquid or gaseous material that is liquid under almost all conditions. Materials in this degree produce hazardous atmospheres with air. These are usually obtained in liquid form. Any material that can be ignited under almost all conditions. Materials in this degree produce hazardous atmospheres with air. These are usually obtained in liquid form.
Hazardous Materials Identification System Hazard Ratings (continued):

**Health Hazard (continued):** Materials with an LD₅₀ for acute dermal toxicity greater than 40 mg/kg but less than or equal to 200 mg/kg. Materials that are corrosive to the respiratory tract. Materials that are corrosive to the eyes or cause irreversible corneal opacity. Materials corrosive to the skin. Cryogenic gases that cause frostbite and irreversible tissue damage. Compressed liquefied gases with boiling points below -55°C (-66.5°F) that cause frostbite and irreversible tissue damage. Materials with an LD₅₀ for acute oral toxicity greater than 5 mg/kg but less than or equal to 50 mg/kg. Materials that, under emergency conditions, can be lethal. Gases with an LC₅₀ for acute toxicity less than or equal to 1.000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than ten times its LC₅₀ for acute inhalation toxicity. If its LC₅₀ is less than or equal to 1000 ppm. Dusts and mists whose LC₅₀ for acute inhalation toxicity is less than or equal to 0.5 mg/L. Materials whose LD₅₀ for acute dermal toxicity is less than or equal to 40 mg/kg. Materials whose LD₅₀ for acute oral toxicity is less than or equal to 5 mg/kg.

**Flammability Hazard:** Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. 1 Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Materials that will burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. Liquids, solids, and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIB liquids). Liquids with a flash point greater than 35°C (95°F) that do not sustain combustion when tested using the Method of Testing for Sustained Combustibility, per 49 CFR 173, Appendix H or the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (current edition) and the related Manual of Tests and Criteria (current edition). Liquids with a flash point greater than 35°C (95°F) in a water-miscible solution or dispersion with a water non-combustible liquid/solid content of more than 85% by weight. Liquids that have no fire point when tested by ASTM D 92, Standard Test Method for Flash and Fire Points by Cleveland Open Cup, up to the boiling point of the liquid or up to a temperature at which the sample being tested shows an obvious physical change. Combustible pellets with a representative diameter of greater than 2 mm (10 mesh). Most ordinary combustible solids. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 2 Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air. Liquids having a flash point at or above 37.8°C (100°F) and below 93.4°C (200°F) (i.e. Class II and IIIIA liquids.) Solid materials in the form of powders or coarse dusts of representative diameter between 420 microns (40 mesh) and 2 mm (10 mesh) that burn rapidly but that generally do not form explosive mixtures with air. Solid materials in fibrous or shredded form that burn rapidly and create flash fire hazards, such as cotton, sisal, and hemp. Solids and semisolids that readily give off flammable vapors. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 3 Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures, are readily ignited under almost all conditions. Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 37.8°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) but below 37.8°C (100°F) (i.e. Class IB and IC liquids). Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air. Flammable or combustible dusts with representative diameter of 120 microns (40 mesh) that burn with extreme rapidity, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent.

**Reactivity Hazard:** Materials that in themselves are normally stable, even under fire conditions. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/ml. Materials that do not exhibit an exotherm at temperatures less than or equal to 50°C (93°F) when tested by differential scanning calorimetry. 1 Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) and below 0.01 W/ml. 2 Materials that readily undergo violent chemical change at elevated temperatures and pressures. Materials that have an instantaneous power density product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/ml and below 100 W/ml. 3 Materials that in themselves are capable of detonation or explosive decomposition or explosive reversion, but that require a strong initiating source or that must be heated under confinement before initiation. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 100 W/ml and below 1000 W/ml. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. 4 Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/ml or greater.

**Flammability Limits in Air:** Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point: Minimum temperature at which a liquid gives off sufficient vapor to form an ignitable mixture with air near the surface of the liquid or within the test vessel used. Autoignition Temperature: Minimum temperature of a solid, liquid, or gas required to initiate or cause self-sustained combustion in air with no other source of ignition. Lower Limit: Lowest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame. Upper Limit: Highest concentration of a flammable vapor or gas/air mixture that will ignite and burn with a flame.

**Toxicological information:** Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. LD₅₀: Lethal Dose (solids and liquids) that kills 50% of the exposed animals. LC₅₀: Lethal Concentration (gases) that kills 50% of the exposed animals. LC₉₅: Concentration expressed in parts of material per million parts of air or water. ppm: Concentration expressed in weight of substance per volume of air. mg/kg: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. TDI₉₅: Lowest dose to cause a symptom. TCE₉₅: Lowest concentration to cause a symptom. TDL₉₅: Lowest or TLV₉₅: Lowest dose (or concentration) to cause lethal or toxic effects.

**Cancer Information:** IARC: International Agency for Research on Cancer; NTP: National Toxicology Program. RTECS: Registry of Toxic Effects of Chemical Substances. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other Information: PEC: Environmental Protection Agency. ADI: Acceptable Daily Intake. RfD: Reference Dose. The RfD is the daily or lifetime average dose of a substance, divided by a safety factor, that is not expected to increase the risk of cancer in humans. It is estimated within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. 4 A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

**Ecological Information:** EC: Effect concentration in water. BCF: Bioconcentration Factor, which is used to determine if a substance will concentrate in life forms that consume contaminated plant or animal matter. TLV: Threshold Limit Value. RfK: Reference Aquatic Toxicity. Kₐq: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the environment.

**Regulatory Information:** This section explains the impact of various laws and regulations on the material.

**ACGIH:** American Conference of Governmental Industrial Hygienists, a professional association that establishes exposure limits. OSHA: U.S. Occupational Safety and Health Administration. NIOSH: National Institute of Occupational Safety and Health, which is the research arm of OSHA. DOT: U.S. Department of Transportation. TC: Transport Canada. SARA: Superfund Amendments and Reauthorization Act. TSCA: U.S. Toxic Substance Control Act. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. EPA: U.S. Environmental Protection Agency. ACGIH: American Conference of Governmental Industrial Hygienists. SARA: Superfund Amendments and Reauthorization Act. TSCA: U.S. Toxic Substance Control Act. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollutant status according to the DOT; CERCLA or Superfund; and various state regulations. This section also includes information on the precautionary warnings that appear on the material’s package label.

**Environment:** WHMIS: Canadian Workplace Hazardous Materials Information System. TC: Transport Canada. DGL/DND: Canadian Domestic/Non-Domestic Substances List.