SAFETY DATA SHEET

AVW-920 Translucent Sealant

1. PRODUCT IDENTIFICATION

IDENTIFICATION of the SUBSTANCE or PREPARATION

<table>
<thead>
<tr>
<th>TRADE NAME (AS LABELED):</th>
<th>AVW-920 Translucent Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT DESCRIPTION:</td>
<td>Acrylic Latex Sealant</td>
</tr>
<tr>
<td>CHEMICAL NAME/CLASS:</td>
<td>Acrylic Latex</td>
</tr>
<tr>
<td>SYNONYMS:</td>
<td>None</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: January 2004

REVISION DATE: February 03, 2017

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, Canadian WHMIS 2015 and the Global Harmonization required information is included in appropriate sections based on the Global Harmonization Standard format. This product has been classified in accordance with the hazard criteria of the countries listed above and the SDS contains all the information required by the Canadian WHMIS 2015 [HPR-GHS], the Global Harmonization Standard and OSHA 1910.120.

2. HAZARD IDENTIFICATION


Classification: STOT (Kidneys, Nervous System) RE Cat. 3
Signal Word: Warning
Precautionary Statement Codes: P260, P280, P314, P501
Hazard Symbols/Pictograms: GHS08

Hazard Statement Codes: H373

EMERGENCY OVERVIEW:

Physical Description: This product is a very thick, viscous, translucent liquid with an acrylic odor.
Health Hazards: WARNING! May cause eye, skin, and respiratory tract irritation, especially if exposure is prolonged.
Flammability Hazard: This product may be 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.

<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
0 = Minimal  3 = Serious
1 = Slight  4 = Severe
2 = Moderate * = Chronic

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CANADIAN WHMIS (HPR-GHS) 2015 CLASSIFICATION AND SYMBOLS: See Section 16 for in Classification and Symbols under HPR-GHS 2015.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Acrylic Polymer Emulsion</td>
<td>60.0-80.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td>Proprietary Benzoate Esters</td>
<td>4.0-7.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
3. MATERIAL IDENTIFICATION (Continued)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>LABEL ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Glycol</td>
<td>1.0-4.0</td>
<td></td>
<td>HARMONISED CLASSIFICATION - ANNEX VI OF REGULATION (EC) NO 1272/2008 (CLP REGULATION)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Acute Oral Cat. 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDITIONAL NOTIFIED CLASSIFICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: STOT (Kidneys, Central Nervous System) SE Cat. 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: H373</td>
</tr>
<tr>
<td>Proprietary Mineral Oil</td>
<td>1.0-3.0</td>
<td></td>
<td>Classification: Aspiration Hazard Cat. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: H304</td>
</tr>
<tr>
<td>Proprietary Fumed Silica</td>
<td>1.0-3.0</td>
<td></td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Not Applicable</td>
</tr>
<tr>
<td>Water and other trace non-hazardous components</td>
<td>Balance</td>
<td></td>
<td>Classification: Not Applicable</td>
</tr>
</tbody>
</table>

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

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 MSDS to physician or other health professional with victim(s).

Inhalation: If aerosols of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

Skin Exposure: If the product 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 product 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 cupfuls 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: > 93.3°C (> 200°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 Fire And Explosion Hazards: This product is combustible and can be ignited when exposed to its flashpoint. 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.

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 at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection.
6. ACCIDENTAL RELEASE MEASURES (Continued)

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. 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 27°C (80°F) in closed containers.

PRODUCT 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.

Occupational/Workplace Exposure Limits/Guidelines:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol</td>
<td>Proprietary</td>
<td>ACGIH TLV TWA</td>
<td>NIC: 63.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV STEL</td>
<td>NIC: 100 mg/m³ (ceiling); NIC: 127 (Vapor and aerosol); NIC: 10 (Measured as inhalable fraction of the aerosol; aerosol only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA VACATED 1989 PEL</td>
<td>125 mg/m³ (ceiling)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>26 mg/m³ (can also occur as vapor and aerosol)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AHA WEEL TWA</td>
<td>2 (measured as inhalable fraction of the aerosol)</td>
</tr>
<tr>
<td>Fumed Silica</td>
<td>Proprietary</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Acrylic Polymer Emulsion</td>
<td>Proprietary</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Benzene Esters</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Mineral Oil Exposure limits are for mineral oil, pure, highly and severely refined</td>
<td>Proprietary</td>
<td>ACGIH TLV TWA</td>
<td>5 mg/m³ (ceiling)</td>
</tr>
</tbody>
</table>

NE = Not Established. See Section 16 for Definitions of Terms Used.

Biological Exposure Indices (BEIs): Currently, the no BEI’s have been established for components.


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8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued):

PERSONAL PROTECTIVE EQUIPMENT (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 mists, sprays or particulates 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 self-contained air supply is required under appropriate regulations and standards.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Thick, viscous liquid.
MOLECULAR WEIGHT: Mixture.
ODOR: Acrylic
SPECIFIC GRAVITY: 1.2-1.5
RELATIVE VAPOR DENSITY (air = 1): Heavier than air.
MELTING/FREEZING POINT: < 0°C (< 32°F)
VOC (less water and exempt): < 20 g/L
FLASH POINT: ~ 93.4°C (~ 200°F)
SOLUBILITIES
IN WATER: Dissolves in wet state; insoluble in cured state.
OTHER SOLUBILITIES: Not available.
COLOR: Translucent.
MOLECULAR FORMULA: Mixture.
ODOR THRESHOLD: Not available.
VAPOR PRESSURE, mm Hg @ 21.1°C: 20
EVAPORATION RATE (BuAc = 1): < 1
BOILING POINT: ~ 100-104.5°C (~-212-220°F)
WEIGHT % VOC: 17-20%
AUTOIGNITION TEMPERATURE: Not established.

10. STABILITY and REACTIVITY

REACTIVITY/ CHEMICAL STABILITY: Stable under normal circumstances of use and handling. Product cures upon contact with air.
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.
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Thermal decomposition of this product can generate dusts, irritating fumes, and toxic gases (e.g., carbon, iron, silica and zirconium oxides, reactive hydrocarbons and aldehydes). Hydrolysis: None known.
POSSIBILITY OF HAZARDOUS REACTIONS: This product is not expected to undergo hazardous polymerization, decomposition, condensation, or self-reactivity. Product slowly cures upon contact with air.

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 Absorption: The components of this product are not known to be absorbed through intact skin.
Ingestion: If the product is swallowed, it may mildly irritate the mouth, throat, and other tissues of the gastro-intestinal system and may cause nausea, vomiting, and diarrhea. Due to the presence of the Proprietary Glycol, accidental ingestion may cause damage to the nervous system and kidneys.
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.
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, kidneys, nervous system.
CHRONIC EFFECTS: Prolonged or repeated skin contact may cause dermatitis (dry, red skin).
TOXICITY DATA: There are currently no toxicity data available for this product; the following toxicity information is available for components greater than 1% in concentration.

BENZATE ESTERS:
LD₅₀ (oral, rat) = > 2000 mg/kg
LD₅₀ (skin, rabbit) = > 2000 mg/kg
Eye Irritancy (rabbit) = Slight

PROPRIETARY GLYCOL (continued):
TDLo (Oral-Man) 24 gm/kg: Brain and Coverings: recordings from specific areas of CNS; Sense Organs and Special Senses (Eye): mydriasis (pupillary dilatation); Lungs, Thorax, or Respiration: other changes
TDLo (Oral-Man) 15 gm/kg: Peripheral Nerve and Sensation: sensory change involving peripheral nerve; Gastrointestinal ulceration or bleeding from small intestine; Kidney/Ureter/Bladder: renal function tests depressed
TDLo (Oral-Man) 1195 mg/kg: Peripheral Nerve and Sensation: sensory change involving peripheral nerve; Kidney/Ureter/Bladder: renal function tests depressed
TDLo (Oral-Man) 24 gm/kg: Brain and Coverings: recordings from specific areas of CNS; Brain and Coverings: other degenerative changes

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11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA (continued):

**PROPRIETARY GLYCOL (continued):**
- TDLo (Oral-Man) 24 g/kg: Brain and Coverings: other degenerative changes; Behavioral: ataxia, coma
- TDLo (Oral-Man) 16 g/kg: Behavioral: coma; Kidney/Ureter/Bladder: renal function tests depressed; Nutritional and Gross Metabolic: metabolic acidosis
- TDLo (Oral-Child) 5500 mg/kg: Behavioral: general anesthetic; Lungs, Thorax, or Respiration: respiratory stimulation; Kidney/Ureter/Bladder: other changes
- LDLo (Oral-Human) 786 mg/kg: Behavioral: convulsions or effect on seizure threshold; coma; Gastrointestinal: hypomotility, diarrhea
- LDLo (Oral-Adult) 398 mg/kg: Behavioral: headache; Gastrointestinal: nausea or vomiting; Liver: other changes
- LDLo (Oral-Human) 1.43 mL/kg
- LDLo (Unreported-Reported) 1637 mg/kg
- LDLo (Unreported-Reported) 70 mg/kg: Cardiac: change in rate; Lungs, Thorax, or Respiration: acute pulmonary edema; Liver: other changes

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

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>ACGIH</th>
<th>EPA</th>
<th>IARC</th>
<th>DFG MAK</th>
<th>NTP</th>
<th>NIOSH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic Polymer Emulsion</td>
<td>No</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>Benzoate Esters</td>
<td>No</td>
<td>No</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Proprietary Glycol</td>
<td>A4</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 Fumed Silica</td>
<td>No</td>
<td>No</td>
<td>3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Proprietary Mineral Oil</td>
<td>A4</td>
<td>No</td>
<td>3 (highly refined)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

ACGIH TLV-A4: Not Classifiable as a Human Carcinogen. IARC-3: Unclassifiable as to the Carcinogenicity in Humans.

**IRRITANT OF SKIN:** This product may mildly irritate contaminated tissue, especially if contact is prolonged.

**SENSITIZATION TO THE PRODUCT:** The components of this product are not known to be human skin or respiratory sensitizers.

**TOXICOLOGICAL 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: No information available for components.
- Embryotoxicity/Teratogenicity/Reproductive Toxicity: The Proprietary Glycol is considered a developmental hazard based on animal evidence. In rats and mice, embryotoxic (late resorptions), fetotoxic (reduced fetal body weight) and teratogenic (external, soft tissue and skeletal defects) effects were observed at relatively high oral doses that caused no or minimal maternal toxicity. However, the US National Toxicology Program Center for the Evaluation of Risks to Human Reproduction (NTP-CERHR) has concluded that the likelihood of developmental toxicity occurring in humans with occupational or consumer exposures is considered negligible, primarily because of the high doses needed to produce effects.

**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.

**PROPRIETARY FUMED SILICA (continued):**
- TCLo (Inhalation-Rat) 5.41 mg/m³/5 days-intermittent: Lungs, Thorax, or Respiration: other changes; changes in lung weight; Biochemical: Metabolism (Intermediate): effect on inflammation or mediation of inflammation
- TCLo (Inhalation-Rat) 154 mg/m³/4 hours-weeks-intermittent: Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: dehydrogenases, Metabolism (Intermediate): other proteins
- TCLo (Intratracheal-Mouse) 96.77 mg/kg: Lungs, Thorax, or Respiration: acute pulmonary edema, other changes; Biochemical: Metabolism (Intermediate): effect on inflammation or mediation of inflammation
- TCLo (Intratracheal-Mouse) 50 mg/kg: Lungs, Thorax, or Respiration: changes in lung weight
- TCLo (Intratracheal-Mouse) 2 mg/kg: 2 mg/kg: Lungs, Thorax, or Respiration: fibrosis, focal pneumonia
- TCLo (Intratracheal-Mouse) 2 mg/kg: Lungs, Thorax, or Respiration: fibrosing alveolitis; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: peptides, metabolism, Metabolism (Intermediate): effect on inflammation or mediation of inflammation
- LDLo (Intratracheal-Rat) 50 mg/kg
- LDLo (Intratracheal-Rat) 10 mg/kg
- LDLo (Intratracheal-Mouse) 96.77 mg/kg: Lungs, Thorax, or Respiration: acute pulmonary edema, dyspnea, other changes

**PROPRIETARY MINERIAL OIL:**
- LDLo (Oral-Rat) > 5000 mg/kg
- TCLo (Oral-Rat) 92 g/m²/2 days-continuous: Liver: changes in liver weight; Blood: changes in leukocyte (WBC) count; Nutritional and Gross Metabolic: weight loss or decreased weight gain
- TCLo (Inhalation-Rat) 1000 mg/m³/4 weeks-intermittent: Lungs, Thorax, or Respiration: changes in lung weight

**12. ECOLOGICAL INFORMATION**

**ALL WORK PRACTICES MUST BE AIDED 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.

**ECOTOXICITY:** This product has not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided. The following data are available for some components.

**PROPRIETARY GLYCOL:**
- LDLo (Carassius auratus goldfish) 24 hours = > 5,000 mg/L
- LDLo (Poecilia reticulata Guppies) 7 days = 49,300 ppm
- LDLo (Rainbow trout) 96 hours = 18,500-41,000 mg/L

**PROPRIETARY GLYCOL (continued):**
- LC50 (Crangon crangon Brown shrimp) 48 hours = >100 mg/L
- LC50 (Goldfish) 24 hours = 5000 mg/L at 20°C static conditions

**PROPRIETARY FUMED SILICA:**
- LC50 (Carp) 72 hours = >10,000 mg/L/Conditions of bioassay not specified
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: The following component of this product is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>SECTION 302 EHS (TPQ)</th>
<th>SECTION 304 RQ</th>
<th>SECTION 313 TRI (threshold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Glycol</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
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.
U.S. CERCLA Reportable Quantity (RQ): The Proprietary Glycol: 5000 lb (2070 kg)
U.S. Clean Air Act (CA 112r) Threshold Quantity (TQ): Not applicable.
Other U.S. Federal Regulations: The Proprietary Glycol is listed as a hazardous air pollutant (HAP) generally known or suspected to cause serious health problems. The Clean Air Act, as amended in 1990, directs EPA to set standards requiring major sources to sharply reduce routine emissions of toxic pollutants. EPA is required to establish and phase in specific performance based standards for all air emission sources that emit one or more of the listed pollutants. The Proprietary glycol is included on this list.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component on the California Proposition 65.
Canadian DSL/NDSL Inventory Status: The components of this product listed by CAS# in Section 3 (MATERIAL IDENTIFICATION) are listed on the DSL Inventory.
Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: Not applicable.
Canadian WHMIS (HPR-GHS) 2015 Classification and Symbols: See Section 16 for in Classification and Symbols under HPR-GHS 2015.
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! MAY CAUSE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION, ESPECIALLY IF EXPOSURE IS PROLONGED. INGESTION MAY CAUSE ADVERSE EFFECTS TO KIDNEYS AND NERVOUS SYSTEM. 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.
Classification: Specific Target Organ Toxicity (Oral-Kidneys, Nervous System) Repeated Exposure Category 3
Signal Word: Warning
Hazard Statements: H373: May cause damage to kidneys and nervous system through prolonged or repeated exposure.
Precautionary Statements:
Response: P314: Get medical advice/attention if you feel unwell.
Storage: None.
Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.
Hazard Symbols/Pictograms: GHS08
Hazardous Materials Identification System Hazard Ratings

Health Hazard: Materials that may cause physical or chemical damage to the body, including damage to the developing embryo or fetus, are considered health hazards. These materials are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for ingestion, inhalation, or dermal contact with the material.

Combustibility: Materials that can burn are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the ease with which the material can be ignited and the nature of the fire that results.

Explosive Hazards: Materials that can explode are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for an explosion to occur and the severity of the explosion.

Flammability: Materials that can cause fires are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the ease with which the material can be ignited and the nature of the fire that results.

Pyrophoricity: Materials that can ignite spontaneously are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for the material to ignite without an external source of heat.

Corrosivity: Materials that can cause corrosion are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for the material to cause corrosion to metals.

Reactivity with Other Materials: Materials that can react with other materials are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for a reaction to occur and the severity of the reaction.

Toxicity: Materials that can cause poisoning or other health effects are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for the material to cause poisoning, irritation, or other health effects.

Protection: Materials that require special handling or equipment are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for the material to cause injury or damage to handling equipment.

Precautions: Materials that require special precautions are rated from 1 to 4, with 1 being the least hazardous and 4 being the most hazardous. The rating is based on the potential for the material to cause injury or damage to people or equipment.

These ratings are based on the material's physical and chemical properties, and the potential for the material to cause harm. The ratings are not intended to be a substitute for personal judgment and should be used in conjunction with other safety information and practices.
DEFINITIONS OF TERMS

Hazardous Materials Identification System Hazard Ratings (continued):

PHYSICAL HAZARD: 1 (continued): Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65%)/cellulose mixture and the criteria for Packing Group I and II are not met. Unstable Reactives: Substances that may decompose, condense, or self-react, but only under conditions that result in significant release of pressure and/or heat. Pyrophoric: Any material that, in a closed container at room temperature, will react explosively with water, or will react at ambient temperature and pressure, or will react at ambient temperature and pressure and have a high potential to cause significant heat generation or explosion. Substances that readily form peroxides upon exposure to air or oxygen at room temperature.3 Water Reactivity: Materials that may form explosive reactions with water. Organic Peroxides: Materials that are capable of detonation or explosive reaction, but require a strong initiating agent (such as friction or a spark). Oxidizing: Substances that are capable of oxidizing any material that is combustible.4 Oxidizers: Packing Group I oxidizers. Solids: any material that, either as a liquid or as a solid, has an estimated initiation temperature less than or equal to 50°C (122°F) and an estimated initiation pressure rise time of less than or equal to the pressure rise time of a 1:1 perchloric acid (50%)/cellulose mixture. Unstable Reactives: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and pressure, or may produce a gas with a boiling pressure of at least 20 mm Hg at temperatures less than or equal to 50°C (122°F) that cause severe tissue damage at 1 psi or below, or produce a gas with a boiling pressure of less than 20 mm Hg at temperatures less than or equal to 50°C (122°F) that will react explosively with water. Pyrophoric: No Rating. Oxidizers: Packing Group II oxidizers. Solids: any material that, in a closed container at room temperature, exhibits a mean burning time of less than or equal to the mean burning time of a 2.3 potassium bromate/cellulose mixture or the criteria for Packing Group I are not met. Liquids: any material that exhibits a pressure mean rise time less than or equal to the pressure rise time of a 1:1 aqueous sodium chloride solution (40%)/cellulose mixture and the criteria for Packing Group I are not met. Reactive: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and pressure, or have a moderate potential to cause significant heat generation or explosion. Materials that react explosively with water without requiring heat or confinement. Organic Peroxides: Materials that are readily capable of detonation or explosive decomposition at normal temperature and pressure. Pyrophoric: No Rating. Oxidizers: Packing Group II oxidizers. Solids: any material that, either as a liquid or as a solid, has an estimated initiation temperature less than or equal to 50°C (122°F) and an estimated initiation pressure rise time of less than or equal to the pressure rise time of 0.01 kgf/cm². Materials that react explosively with water without requiring heat or confinement. Reactive: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and pressure, or have a high potential to cause significant heat generation or explosion.4

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS

FLAMMABILITY HAZARD: 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Method of Testing for Fire Tests of Materials—Apparatus and Procedures. Substances that in the event of fire 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 the Method of Testing for Fire Tests of Materials—Apparatus and Procedures. Substances that in the event of fire require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. 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. Most ordinary combustible materials. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 2 Materials that must be moderately heated or exposed to a temperature of greater than 100°C (212°F) under normal ambient conditions before ignition can occur. Materials in this degree will 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 78.8°C (172°F) and below 210°C (410°F) and those liquids having a flash point at or above 100°C (212°F) and below 120°C (248°F). Materials that will not form explosive atmospheres with air under normal 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 below 22.8°C (73°F) and a boiling point below 120°C (248°F). Materials having a boiling point below 120°C (248°F) and a flash point below 22.8°C (73°F). Liquids having a boiling point below 22.8°C (73°F) but having a flash point at or above 78.8°C (172°F) and those solids that will form hazardous atmospheres with air under all ambient temperatures, but are not met.

FLAMMABILITY HAZARD (continued):

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 sustain combustion in a sealed container. The duration of induced heat necessary to create a flammable vapor or gas mixture that will ignite and burn with a flame. UEL: Highest concentration of a flammable vapor or gas mixture that will ignite and burn with a flame. Lower Explosive Limit (LEL): A concentration of flammable gas, vapor, mist, or dust in air that will not ignite and burn or support combustion. Upper Explosive Limit (UEL): A concentration of flammable gas, vapor, mist, or dust in air that will ignite and burn or support combustion. Ignition Source: Any type of energy, whether electrical, mechanical, or thermal, that can be generated in or on a work site, including but not limited to: induction, friction, spark, or electrical. Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. LD₅₀: Lethal Dose (solids & liquids) that kills 50% of the exposed animals. LC₅₀: Lethal Concentration (gases) that kills 50% of the exposed individuals. Concentration expressed in terms of substance or material of air. DPD: Dermal Protective Dwell. Concentration expressed in weight of substance per volume of air, ppm, mg/m³. Concentration expressed in weight of substance per volume of air. Toxicity: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. TD₅₀: Lowest Concentration that will result in a 50% reduction of a test parameter due to exposure to a hazardous substance. LD₅₀: Lethal Dose (solids & liquids) that kills 50% of the exposed animals. Concentration expressed in weight of substance per volume of air or water. m/m. Concentration expressed in weight of substance per volume of air. mg/m³. Concentration expressed in weight of substance per volume of air. Toxicity: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. LD₅₀: Lowest Concentration that will result in a 50% reduction of a test parameter due to exposure to a hazardous substance. LC₅₀: Lethal Concentration (gases) that kills 50% of the exposed individuals. Concentration expressed in terms of substance or material of air. DPD: Dermal Protective Dwell. Concentration expressed in weight of substance per volume of air. ppm, mg/m³. Concentration expressed in weight of substance per volume of air. Toxicity: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. TD₅₀: Lowest Concentration that will result in a 50% reduction of a test parameter due to exposure to a hazardous substance. LD₅₀: Lethal Dose (solids & liquids) that kills 50% of the exposed animals. Concentration expressed in weight of substance per volume of air or water. m/m. Concentration expressed in weight of substance per volume of air. mg/m³. Concentration expressed in weight of substance per volume of air. Toxicity: Quantity of material, by weight, administered to a test subject, based on their body weight in kg.
DEFINITIONS OF TERMS (Continued)

REPRODUCTIVE INFORMATION: A mutagen is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

ECOLOGICAL INFORMATION:
EC: Effect concentration in water. BCF: Bioconcentration Factor, which is used to determine if a substance will concentrate in life forms that consume contaminated plant or animal matter. TLm: Median threshold limit. log Kow or log Koc: 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.

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

CANADA: