SAFETY DATA SHEET

Pecora Deck™ P-808 Part B

PART I  What is the material and what do I need to know in an emergency?

1. PRODUCT IDENTIFICATION

IDENTIFICATION of the SUBSTANCE or PREPARATION

<table>
<thead>
<tr>
<th>TRADE NAME (AS LABELED):</th>
<th>Pecora Deck™ P-808 Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT DESCRIPTION:</td>
<td>Primer</td>
</tr>
<tr>
<td>CHEMICAL NAME/CLASS:</td>
<td>Solvent Polymer Mixture</td>
</tr>
<tr>
<td>SYNONYMS:</td>
<td>None</td>
</tr>
<tr>
<td>RELEVANT USE:</td>
<td>Part B for Two-Part Epoxy Primer</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: January 2004

This product is sold for commercial use. This MSDS 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: Flammable Liquid Cat. 2, Reproductive Toxicity Cat. 2, Acute Oral Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Eye Damage Cat. 1, Skin Irritation Cat. 2, STOT (Inhalation-Central Nervous System, Respiratory Irritation) SE Cat. 3, STOT (Inhalation/Ingestion-Central Nervous System) SE Cat. 2, Skin Sensitization Cat. 1B, Respiratory Sensitization Cat. 1B

Signal Word: Danger


Hazard Symbols/Pictograms: GHS02, GHS05, GHS08

EMERGENCY OVERVIEW:

Physical Description: This product is a colorless, highly flammable liquid with a characteristic, sweet, solvent odor.

Health Hazards: DANGER! Flammable liquid. This product may cause moderate to severe respiratory, skin and eye irritation, depending on duration and concentration of exposure. Eye contact may be more severe and cause damage to eye tissue. Harmful by ingestion and inhalation. May be harmful by skin contact. Ingestion may cause serious eye effects. May cause toxic systemic effects by skin absorption, inhalation or ingestion. Exposure may cause adverse central nervous system effects. Can cause skin and respiratory sensitization effects. Contains compounds that are suspect teratogens and carcinogens.

Flammability Hazard: This product is flammable and can ignite if exposed to high temperature or direct flame.

Reactivity Hazard: Contact with water will form alkaline solutions. Due to the Triethylenetetramine component, this product may react violently with acids, aldehydes, ketones, halogenated organic compounds, acrylates, chloroformates.

Environmental Hazard: This product has not been tested for environmental impact. All release to the environment should be avoided.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS®)

<table>
<thead>
<tr>
<th>Health</th>
<th>2*</th>
<th>See Section 16 for definitions of ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>2</td>
<td>0 = Minimal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = Slight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = Moderate</td>
</tr>
</tbody>
</table>

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

CANADIAN WHMIS CLASSIFICATION: Class E, D2B and Class B2. See Section 15 (Regulatory Information) for all classification details.

U.S. OSHA REGULATORY STATUS: This material is classified as hazardous under OSHA regulations.
### 3. COMPOSITION AND INFORMATION ON INGREDIENTS (Continued)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>LABEL ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Acetate</td>
<td>79-20-9</td>
<td>45.0-65.0</td>
<td>Classification: Flammable Liquid Cat. 2, Eye Irritant Cat. 2A, STOT SE (Inhalation: Narcotic Effect) SE Cat. 3, Hazard Statement Codes: H225, H319, H336</td>
</tr>
<tr>
<td>Proprietary Polyamide Solution</td>
<td></td>
<td>20.0 – 30.0</td>
<td>SELF-CLASSIFICATION: Flammable Liquid Cat. 2, Acute Oral Toxicity Cat. 4, Skin Sensitization Cat. 1B, Combustible Liquid Cat. 4, Hazard Statement Codes: H314, H332, H334</td>
</tr>
<tr>
<td>Xylene</td>
<td>112-24-3</td>
<td>1.0 – 2.0</td>
<td>Classification: Flammable Liquid Cat. 2, Reproductive Toxicity Cat. 2, Aspiration Hazard Cat. 1, STOT RE Cat. 2, Skin Irritation Cat. 2, STOT (Inhalation-Central Nervous System) SE Cat. 3, Hazard Statement Codes: H225, H314, H332, H334</td>
</tr>
<tr>
<td>Toluene</td>
<td>1330-20-7</td>
<td>10.0-15.0</td>
<td>Classification: Flammable Liquid Cat. 2, Acute Oral Toxicity Cat. 4, Skin Sensitization Cat. 1B, STOT (Inhalation-Central Nervous System) SE Cat. 3, Hazard Statement Codes: H225, H314, H332, H334</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>1.0-3.0</td>
<td>Classification: Flammable Liquid Cat. 2, Eye Irritation Cat. 2A, STOT (Inhalation-Central Nervous System) SE Cat. 3, Hazard Statement Codes: H225, H319, H336</td>
</tr>
</tbody>
</table>

See Section 16 for full text of Ingredient Hazard and Precautionary Statements

### PART II  What should I do if a hazardous situation occurs?

#### 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. Fire protective gear may be 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 mists, sprays or fumes 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 cupsful 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:** Acute or chronic respiratory conditions, and central nervous system conditions or skin problems may be aggravated by overexposure to this product.

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

#### 5. FIRE-FIGHTING MEASURES

**FLASH POINT (est.):** -0.95 to -1.57°C (30.2-33.8°F)

**AUTOIGNITION:** Not known for product. For Methyl Acetate: 454°C (850°F); For Xylene: 464°C (867°F)

**FLAMMABLE LIMITS IN AIR:** Not known for product. For Methyl Acetate: LEL: 3.1%, UEL: 16.0%; For Xylene: LEL: 1.0%, UEL: 7.0%

**EXTINGUISHING MEDIA:**

**Suitable Extinguishing Media:** Use materials appropriate for surrounding materials. Water should only be used to cool containers.

**Unsuitable Extinguishing Media:** Due to the presence of amine compounds, this product may be incompatible with halons and water and other compounds given in Section 10 (Compatibility and Instability).

**PROTECTION OF FIREFIGHTERS:**

**Special Hazards Arising From the Substance:** This is a highly flammable liquid. Not sensitive to mechanical impact under normal conditions. Vapors may form explosive mixtures in air. Vapors are heavier than air and can accumulate in confined spaces creating an explosion hazard. Vapors can travel long distances and flashback to ignition source. Closed containers may develop pressure and rupture in event of fire. Large fires involving this product may cause dense clouds of silicon dioxide.
**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 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. Absorb spilled liquid with clay, sand, polypads, or other suitable inert absorbent materials. 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. Monitor area for combustible vapor levels and confirm levels are below exposure limits given in Section 8 (Exposure Controls—Personal Protection), if applicable, and that levels are below applicable LELs (see Section 5 – Fire Fighting Measures) before non-response personnel are allowed into the spill area. Purge equipment with inert gas prior to reuse.

**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.

**PART III**

**How can I prevent hazardous situations from occurring?**

**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. Contaminated clothing needs to be laundered prior to reuse. Keep away from heat and flame. In the event of a spill, follow practices indicated in Section 6: ACCIDENTAL RELEASE MEASURES. Avoid contact with water.

Empty containers may contain residual product; therefore, empty containers should be handled with care. Decontaminate empty containers by filling with water or a solution of ammonium hydroxide (0-10%), detergent (2-5%), isopropanol (0-20%): may create a fire or vapor hazard in some situations, e.g. confined spaces; if so, do not use), water (balance of solution). Heat and CO2 gas are released when isocyanates react with water or solution. Let stand uncovered or loosely covered for at least 24 hours. Decontaminate (using above solution) and clean isocyanate handling equipment after use. Stand upwind of all opening, pouring and mixing operations. Keeping work areas clean is essential. Use work surfaces that can be easily decontaminated. Maintain good personal hygiene.

**CONDITIONS FOR SAFE STORAGE:** Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Storage areas should be made of fire resistant materials. Local Fire Departments should be notified of the storage of this product on site. Storage and processing areas of this product should be identified with a NFPA 704 placard (diamond) large enough to be seen from a distance. Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. Refer to NFPA 30, Flammable and Combustible Liquids Code, for additional information on storage. Have appropriate extinguishing equipment in the storage area (such as sprinkler systems or portable fire extinguishers). Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged.

**PRODUCT USE:** This product is used as a primer. 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, explosion proof ventilation to ensure exposure levels are maintained below the limits provided above.
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>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>ACGIH TLV TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV STEL</td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>500 ppm (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL STEL</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>200 (skin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK PEAK</td>
<td>2×MAK 15 minute average value, 1-hr interval 4 per shift</td>
</tr>
<tr>
<td>Methyl Acetate</td>
<td>79-20-9</td>
<td>ACGIH TLV TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV STEL</td>
<td>205 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>205 ppm (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK PEAK</td>
<td>4×MAK 15 minute average value, 1-hr interval 4 per shift</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>ACGIH TLV TWA</td>
<td>20 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>200 ppm; 100 ppm (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>300 ppm (ceiling) 10 minute peak per 8-hr shift; 150 (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>50 (skin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK PEAK</td>
<td>4×MAK 15 minute average value, 1-hr interval 4 per shift</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>DFG MAK</td>
<td>Danger of Sensitization of the Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AIHA WEEL TWA</td>
<td>1 mg/m³ (skin)</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>ACGIH TLV TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>150 ppm (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL STEL</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>100 (skin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK PEAK</td>
<td>4×MAK 15 minute average value, 1-hr interval 4 per shift</td>
</tr>
</tbody>
</table>

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


Eye/Face Protection: Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations.

Skin Protection: Wear chemical impervious gloves (e.g., Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations.

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.

Respiratory Protection: If mists or sprays 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. The following are NIOSH respiratory equipment guidelines are presented for additional assistance in respiratory protective equipment selection.

**METHYL ACETATE**

**CONCENTRATION**

- Up to 2000 ppm
- Up to 3100 ppm

**RESPIRATORY PROTECTION**

- Any Air-Purifying Half-Mask Respirator equipped with organic vapor cartridge(s), or any Supplied-Air Respirator (SAR).
- Any SAR operated in a continuous-flow mode, or any Air-Purifying Full-Facepiece Respirator equipped with organic vapor cartridge(s), or any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any Powered Air-Purifying Respirator (PAPR) with organic vapor cartridge(s), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece, or any SAR with a full facepiece.

Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: Any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.
8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

PERSONAL PROTECTIVE EQUIPMENT (PPE) [continued]:

Respiratory Protection (continued):

<table>
<thead>
<tr>
<th>TOluene</th>
<th>CONCENTRATION</th>
<th>RESPIRATORY PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 500 ppm:</td>
<td>Any Chemical Cartridge Respirator with organic vapor cartridge(s), or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge(s), or any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any Supplied-Air Respirator (SAR), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece.</td>
<td></td>
</tr>
<tr>
<td>Emergency or Planned entry into Unknown concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escape:</td>
<td>Any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Xylenes</th>
<th>CONCENTRATION</th>
<th>RESPIRATORY PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 900 ppm:</td>
<td>Any Chemical Cartridge Respirator with organic vapor cartridge(s), or any Powered, Air-Purifying Respirator (PAPR) with organic vapor cartridge(s), or any Supplied-Air Respirator (SAR), or any Self-Contained Breathing Apparatus (SCBA) with a full facepiece.</td>
<td></td>
</tr>
<tr>
<td>Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions: Any SCBA that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any SAR that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary SCBA operated in pressure-demand or other positive-pressure mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escape:</td>
<td>Any Air-Purifying, Full-Facepiece Respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister, or any appropriate escape-type, SCBA.</td>
<td></td>
</tr>
</tbody>
</table>

9. PHYSICAL and CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>FORM</th>
<th>Viscous, liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOLECULAR WEIGHT</td>
<td>Mixture.</td>
</tr>
<tr>
<td>ODOR</td>
<td>Sweet, aromatic.</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>For Methyl Acetate: 180 ppm (detection); 300 ppm (recognition); For Xylene: 20 ppm (detection); 40 ppm (recognition) (10): 0.4-20 ppm (100% recognition).</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>(air = 1) &gt; 1</td>
</tr>
<tr>
<td>FREEZING/MELTING POINT</td>
<td>Not available.</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>(water = 1): 7.27 lb/gal</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Not available.</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>Not available.</td>
</tr>
<tr>
<td>COEFFICIENT WATER/OIL DISTRIBUTION</td>
<td>Not available.</td>
</tr>
<tr>
<td>HOW TO DETECT THIS SUBSTANCE (WARNING PROPERTIES):</td>
<td>The odor of this product may be good warning property in the event of an accidental release, as the odor threshold of Xylene is 10 times its TLV.</td>
</tr>
</tbody>
</table>

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: Stable under normal circumstances of use and handling.

CONDITIONS TO AVOID: Avoid contact with incompatible chemicals and exposure to extreme temperatures.

INCOMPATIBLE MATERIALS: Based upon component incompatibility, this product may be incompatible with oxidizing materials, calcium hypochlorites, sodium hypochlorite, nitrosating agents (e.g. nitrites and nitrous acid), organic acids, mineral acids. This product may attack some plastics and metals (copper, aluminum, zinc and galvanized metals).

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Thermal decomposition of this product can generate carbon, silicon and nitrogen oxides, reactive hydrocarbons, low molecular weight aldehydes (e.g. acetaldehyde), formaldehyde, hydrogen gas, silicon, trimethoxysilane, dimethyl ether, propenamine, ammonia and unstable peroxides. Nitrosamines may be formed in contact with nitrous acid, nitrates and nitrous oxide. Hydrolysis: Unknown.

POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: Due to the Triethyleneetramine component, this product may react violently with acids, aldehydes, ketones, halogenated organic compounds, acrylates, chloroformates.

PART IV Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: The most significant routes of occupational overexposure are inhalation and contact with skin and eyes. The symptoms of overexposure to this product are as follows:

Contact with Skin or Eyes: Depending on the duration of skin contact, skin exposures can cause reddening, discomfort or irritation. Prolonged contact may cause inflammation, redness, rash, swelling, blistering and moderate to severe irritation or burns. Repeated skin contact may cause defatting and dermatitis. Skin contact may cause skin sensitization and allergic reaction with rash, welts and itching. Brief contact with the liquid or vapors from this product and the eyes can cause irritation, reddening and watering and disturbances to the vision. Eye contact will cause severe irritation, depending on the duration and concentration of exposure.

Skin Absorption: Prolonged skin contact may cause adverse systemic toxicity by skin absorption as described under ingestion or inhalation.

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 as well as adverse effects on the central nervous system. Symptoms can include dizziness, vomiting and incoordination. Ingestion of large amounts may be harmful and cause systemic toxicity and severe irritation or burns to the digestive system. Ingestion of large amount may be fatal.
11. TOXICOLOGICAL INFORMATION (Continued)

POSSIBLE HEALTH EFFECTS (continued):

Inhalation: Inhalation of vapors, mists, or sprays of this product can moderately irritate the tissues of the nose, mouth, throat, and upper respiratory system. Symptoms of overexposure may include coughing, sneezing, and difficulty breathing. Inhalation can also lead to adverse central nervous system effects, including dizziness, incoordination, nausea, and vomiting. High aerosol concentrations could cause severe irritation, inflammation of the lungs (chemical pneumonitis), chemical bronchitis with severe asthma-like wheezing, severe coughing spasms and accumulation of fluid in the lungs (pulmonary edema), which could prove fatal. Symptoms of pulmonary edema may not appear until several hours after exposure and are aggravated by physical exertion. In animal studies involving long-term ingestion or inhalation of the Isopropyl Alcohol component in mice and rats has caused decreased body weight, a reversible increase in motor activity, increased liver weight, and signs of central nervous system (CNS) depression. Kidney injury has been observed in rats (especially males) and mice exposed to high concentrations of Isopropyl Alcohol.

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, respiratory system, eyes. Chronic: Skin, respiratory and central nervous systems, kidneys and eyes.

TOXICITY DATA: There are currently no toxicity data available for this product; the following toxicology data are available for components greater than 1% in concentration. Due to the large amount of data, only human data, LD50 Oral-Rat or Mouse, LD50 Skin-Rat or Mouse, LC50 Inhalation-Rat or Mouse and skin irritation data are provided in this SDS. Contact Pecora for more information.

ISOPROPYL ALCOHOL:

METHYL ACETATE (continued):

Skin Irritation (rabbit) = 800 mg; mild
Eye Irritation (rabbit) = 870 mg; mild
Eye Irritation (rabbit) = 2 mg/24 hours; severe
Eye Irritation (rabbit) = 100 mg/50 seconds/rince; mild
LD50 (oral, human) = 5000 mg/kg
TCLo (intraperitoneal, mouse) = 400 ppm/24 hours

TRIETHYLENETETRAMINE:

Open Irritation Test (Skin-Mouse) = 400 mg; severe
Standard Draize Test (Skin-Rabbit) 5 mg/24 hours; severe
Standard Draize Test (Eye-Rabbit) 49 mg; Severe
Standard Draize Test (Eye-Rabbit) 20 mg/24 hours; Moderate
LD50 (oral-Rat) 2500 mg/kg
LD50 (oral-Mouse) 38.5 mg/kg
LD50 (oral-Rabbit) 5500 mg/kg
LD50 (Skin-Rabbit) 805 mg/kg
LD50 (Intraperitoneal-Mouse) 468 mg/kg
LD50 (intravenous-Mouse) 350 mg/kg

XYLENE:

Standard Draize Test (Eye-Human) 200 ppm
LD50 (oral-Human) 50 mg/kg
LC50 (Inhalation-Human) 10,000 ppm/6 hours: Behavioral: general anesthetic; Lungs, Thorax, or Respiration: cyanosis; Blood: other changes
TCLo (Inhalation-Human) 200 ppm: Sense Organs and Special Senses (Olfaction): effect; not otherwise specified; Sensory Organs and Special Senses (Eye): conjunctivitis irritation; Lungs, Thorax, or Respiration: 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>IARC</th>
<th>EPA</th>
<th>NTP</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminoethyl Aminopropyl Triethoxy Silane</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>N,N'-bis(trimethoxysilylpropyl)-1,2-ethanediame</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>Isopropyl Alcohol</td>
<td>3</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>A4</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Methyl Acetate</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>Toluene</td>
<td>3</td>
<td>II</td>
<td>No</td>
<td>No</td>
<td>A4</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Xylene</td>
<td>3</td>
<td>II</td>
<td>No</td>
<td>No</td>
<td>A4</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

IARC: 3: Unclassifiable as to Carcinogenicity in Humans. EPA-II: Inadequate Information to Assess Carcinogenic Potential. ACGIH TLV-A4: Not Classifiable as a Human Carcinogen.

Pecora-Deck™ P-808 Part B

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11. TOXICOLOGICAL INFORMATION (Continued)

IRRITANTY OF PRODUCT: This product may cause moderate to severe irritation or burns by all routes of exposure, depending on concentration and duration of exposure.

SENSITIZATION TO THE PRODUCT: Amine compounds, such as the polymer in this product, can cause skin sensitivity in susceptible individuals.

TOXICOLOGICAL SYNERGISTIC PRODUCTS: Isopropyl Alcohol has enhanced the toxicity of carbon tetrachloride, 1,1,2-trichloroethane, chloroform, trichloroethylene, and dimethylnitrosamine in rodents. There is also one case report of Isopropyl Alcohol workers becoming ill following exposure to carbon tetrachloride. The actual concentrations of 2-propanol and carbon tetrachloride were not measured. However, the authors felt that the workers were predisposed to carbon tetrachloride toxicity due to the historical and concurrent exposure to Isopropyl Alcohol. The elimination of Isopropyl Alcohol is prolonged when ethanol is ingested at the same time. There have been several studies in humans and animals on the interaction of Xylenes with drugs, alcohol and other solvents. Xylene has a high potential to interact with other compounds because it increases metabolic enzymes in the liver and decreases metabolic enzymes in the lungs. In general, exposure to related solvents, such as benzene, toluene and ethanol (alcohol) slows the rate of clearance of Xylenes from the body, thus enhancing its toxic effects. Combined exposure to toluene and noise, Toluene and n-hexane, Toluene and aspirin or toluene, ethyl benzene and noise has caused a synergistic loss of hearing in animal studies. Increased hearing loss has also been observed in workers in some studies following long-term exposure to Toluene and noise.

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

**Mutagenicity:** The information located does not suggest that Isopropyl Alcohol is mutagenic. No well-conducted studies in live animals using relevant routes of exposure were located. Negative results were obtained in short-term tests using mammalian cells and bacteria. Both positive and negative results have been obtained in studies for various mutagenic effects in peripheral blood lymphocytes of workers exposed to Toluene; mutagenicity cannot be determined.

**Embryotoxicity/Teratogenicity:** Isopropyl Alcohol is not a developmental toxin in the absence of maternal toxicity; all embryotoxic and Teratogenic effects have also caused significant adverse effects in pregnant mothers. Toluene is a developmental toxicity hazard, based on information obtained from animal studies. Fetotoxicity (reduced fetal weight), behavioral effects (effects on learning and memory) and hearing loss (in males) have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were observed in the absence of maternal toxicity. Xylene (mixed isomers) are considered fetotoxic in humans, based on observations of reduced fetal weight, delayed ossification and persistent behavioral effects in animal studies in the absence of maternal toxicity. Other developmental effects have been observed in animal studies in the presence of maternal toxicity. Several human population studies have suggested a link between exposure to organic solvents (including xylene) and increased occurrence of miscarriages or birth defects in children. However, in the majority of cases, there was exposure to a variety of solvents at the same time, exposures were ill-defined, and the number of cases examined was small.

**Reproductive Toxicity:** No information available on possible adverse effects on fertility or other reproductive effects.

**BIOLOGICAL EXPOSURES INDICES (BEIs):** Currently, the following BEI’s have been established for some components.

<table>
<thead>
<tr>
<th>CHEMICAL: PRODUCED</th>
<th>SAMPLING TIME</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>End of shift at end of workweek</td>
<td>40 mg/L</td>
</tr>
<tr>
<td>Toluene</td>
<td>Prior to Last Shift of Workweek</td>
<td>0.02 mg/L</td>
</tr>
<tr>
<td>Xylenes</td>
<td>End of Shift</td>
<td>0.03 mg/L</td>
</tr>
<tr>
<td>Xylenes</td>
<td>End of Shift</td>
<td>0.3 mg/L/creatinine</td>
</tr>
<tr>
<td>Methylhippuric Acid in Urine</td>
<td>End of Shift</td>
<td>1.5 g/creatinine</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

**MOBILITY:** This product has not been tested for mobility in soil. The following information is available for the main solvent components.

**ISOPROPYL ALCOHOL:** The Koc of this compound is estimated as 25, using a measured log Kow of 0.05 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that this material is expected to have very high mobility in soil.

**METHYL ACETATE:** The Koc is estimated as approximately 30, using a log Kow value of 0.18 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that this compound is expected to have very high mobility in soil.

**TOLUENE:** In association with clay minerals, Toluene's adsorption is inversely proportional to the pH of the soil. The reported Kocs are 178 in a sandy soil and as 37 (Wendover silty loam), 160 (Grimbsy silt loam), 160 (Van derl sand loam) and 46 (sandy soil), 166 in lake sediment. According to a classification scheme, this Koc data suggests that Toluene is expected to have high to moderate mobility in soil. Also, based on a classification scheme, Koc values of 37-178 measured in soil indicates that Toluene is expected to have high to moderate mobility in soil.

**XYLENE:** Several experimental Koc values for this compound have been reported depending upon the pH and organic carbon content of the soil. Batch experiments conducted with five low organic carbon content (0.04-1.12%), field contaminated soils (3 silty clay and two sandy loams) yielded Koc values ranging from 39-365. This compound in Norwegian forest soil at pH 5.6 and organic carbon content of 0.2 percent has a reported experimental Koc of 129; in Norwegian agricultural soil at pH 7.4 and organic carbon content of 2.2 percent has a reported experimental Koc of 158; in Norwegian forest soil at pH 4.2 and organic carbon content of 3.7 percent has a reported experimental Koc of 289. Based on a recommended classification scheme and the experimentally determined Koc values, this material is expected to have moderate to high mobility in soils. Xylene isomers have been observed to pass through soil at a dune-infiltration site on the Rhine River and to leach into groundwater under a rapid infiltration site.

**PERSISTENCE AND BIODEGRADABILITY:** This product has not been tested for persistence or biodegradability. The following information is available for the main solvent components.

**ISOPROPANOL:** Based on a classification scheme, an estimated Koc value of 25, determined from a log Kow of 0.05 and a regression-derived equation, indicates that this material is expected to have very high mobility in soil. Volatilization of this material from moist soil surfaces is expected to be an important fate process given a Henry's Law constant of 8.10X10^2 atm-cu m/mole. The potential for volatilization of this compound from dry soil surfaces may exist based upon a vapor pressure of 45.4 nmHg. This material is readily degraded in aerobic systems; the range of half-lives for aerobic degradation using a sewage sludge inoculum are < 1 day to 48 days. This compound has also been shown to be readily degraded under anaerobic conditions. Volatilization from water surfaces is expected based upon a Henry's Law constant of 8.10X10^-6 atm-cu m/mole. Using this Henry's Law constant and an estimation method, volatilization half-lives for a model river and model lake are 57 hours and 29 days, respectively. This material is readily degraded in aerobic systems; the range of half-lives for aerobic degradation using a sewage sludge inoculum are < 1 day to 48 days. This compound has also been shown to be readily degraded under anaerobic conditions. According to a model of gas/particle partitioning of semi-volatile organic compounds in the atmosphere, this material, which has a vapor pressure of 45.4 mm Hg at 25°C, is expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase material is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 3.2 days, calculated from its rate constant of 5.07X10^-12 cu/cmolecule-sec at 25°C.
12. ECOLOGICAL INFORMATION (Continued)

PERSISTENCE AND BIODEGRADABILITY (continued):

METHYL ACETATE: If released to air, a vapor pressure of 216 mm Hg at 25°C indicates this compound will exist solely as a vapor in the ambient atmosphere. Vapor-phase material will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 47 to 94 days. If released to soil, this compound is expected to have very high mobility based upon an estimated Koc of 30. Volatilization from moist soil surfaces is expected to be an important fate process based upon Henry's Law constant of 1.15X10^-3 atm-cu/mole. Volatilization from dry soils may occur based on the vapor pressure of this compound. Limited data suggest that the compound is expected to biodegrade in both soil and water under aerobic conditions. The half-life of volatilization from soils is expected to be an important fate process based on the Henry's Law constant. The biodegradation half-life in various soils was reported as several hours to 71 days. Volatilization from water surfaces is expected based upon a Henry's Law constant of 6.6X10^-3 atm-cu/mole. Using this Henry's Law constant and an estimation method, volatilization half-lives for a model river and model lake are 1 hour and 4 days, respectively. The half-life of this material in aerobic and anaerobic water was reported as 4 and 56 days, respectively. According to a model of gas/partitioning of semi-volatile organic compounds in the atmosphere, Toluene, which has a vapor pressure of 26.4 mm Hg at 25°C, is expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase material is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals, nitrate radicals and ozone molecules. The half-life for the reaction with hydroxyl radicals is estimated to be 28 days, calculated from its rate constant of 5.6X10^-12 cu/molecule-sec at 25°C. The half-life for the nighttime reaction with nitrate radicals is estimated as 249 days calculated from its rate constant of 6.6X10^-17 cu/molecule-sec at 25°C. The half-life for the reaction with ozone is estimated to be 27,950 days calculated from its rate constant of 4.1X10^-22 cu/molecule-sec at 25°C.

XYLENE: Based on an experimental vapor pressure of 7.99 mm Hg at 25°C, this compound is expected to exist entirely in the vapor phase in the ambient atmosphere. Vapor-phase material is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals with an estimated atmospheric lifetime of about 1-2 days. This compound is expected to have moderate to high mobility in soils based upon experimental Koc values obtained with a variety of soils at differing pH values and organic carbon content. Volatilization from moist soil surfaces is expected based on an experimental Henry's Law constant of 7.0X10^-3 atm-cu/mole. Biodegradation is an important environmental fate process for this compound. In general, it has been found that this material is biodegraded in soil and groundwater samples under aerobic conditions and may be degraded under anaerobic denitrifying conditions. In water, this compound is expected to adsorb somewhat to sediment or particulate matter based on its measured Koc values. This compound is expected to volatilize from water surfaces given its experimental Henry's Law constant. Estimated half-lives for a model river and model lake are 1 and 99 hours, respectively. Log Koc = 3.5-6.0.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. The BCFs of the Toluene component in eels is 13 and in golden ide 90. The calculated BCF for Methyl Acetate is 0.8. The estimated BCF for Xylene is 20. The estimated value for Isopropyl Alcohol is 3. These values indicate low biocaccumulation potential.

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 aquatic toxicity data are available for some components. Only select data are given due to the large amount of data available. Contact Pecora for more information.

ISOPROPANOL:
EC50 (Daphnia magna) 30.01 mg/L
EC10 (Pseudomona putida) 16 hours = 1.050 mg/L
EC10 (Artemia salina) 24 hours = 16.700 mg/L
EC10 (Daphnia magna) 24 hours = 9.300 mg/L
LC50 (Brachionus calyciflorus) 24 hours = 28.600 mg/L
LC50 (Cyprinodon variegatus) 96 hours = 1,150 mg/L
LC50 (goldfish) 24 hours = > 500 mg/L
LC50 (fathead minnow) 48 hours = 11.130 mg/L
LC50 (fathead minnow) 72 hours = 11.130 mg/L
LC50 (fathead minnow) 24 hours = 1.130 mg/L
LC50 (Poeckia reticulata guppy) 7 days = 0.760 mg/L
LC50 (Daphnia magna) 4.600 mg/L
LC50 (crack creek) 24 hours = 1.100 mg/L

METHYL ACETATE:
LC50 (Pimephales promelas fathead minnow) 96 hours = 320 mg/L
LC50 (Pimephales promelas fathead minnow) 96 hours = 199 mg/L
LC50 (Pimephales promelas fathead minnow) 96 hours = 320 mg/L

TOLUENE (continued):
LC50 (Mytilus edulis) 96 hours = > 56 mg/L
LC50 (goldfish) 24 hours = 58 mg/L
LC50 (fathead) 24-96 hours = 56-34 mg/L
LC50 (bluegill) 24-96 hours = 24 mg/L
LC50 (mosquito fish) 24-96 hours = 1.340-1.280 mg/L
LC50 (Pimephales promelas) 96 hours = 18-30, 34-42 mg/L
LC50 (Lepomis macrochirus) 96 hours = 13 mg/L
LC50 (Oncorhyncus kisutch) 96 hours = 5.5 mg/L
EC50 (Daphnia magna) 48 hours = 15 mg/L
EC50 (Oncorhyncus kisutch) 40 days = 2.8 mg/L (growth inhibition)
EC50 (Coptodon variegatus) 28 days = 7.7 mg/L (growth inhibition)
EC50 (Salmo gairdneri) 4 days = 5.8 mg/L (growth inhibition)
EC50 (Solemnae capricornutum) 3 days = 12 mg/L (growth inhibition)
EC50 (Poeckia reticulata guppy) 14 days = 2.87 mmol/L

XYLENE:
LD50 (goldfish) 24 hours = 13 mg/L (conditions of bioassay not specified, no specific species)
LD50 (rainbow trout) 96 hours = 13.5 mg/L (conditions of bioassay not specified, no specific species)
LD50 (fathead minnow) 1 hour = 42 mg/L at 18-22°C, in a static bioassay (No specific species)
LD50 (fathead minnow) 24-96 hours = 46 mg/L at 18-22°C, in a static bioassay (No specific species)
LD50 (Canasius auratus goldfish) 96 hours = 16.9 ppm

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 be a hazardous waste as defined by U.S. federal regulation (40 CFR 261) if discarded or disposed. It has the characteristic of Ignitibility. 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: D001.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: This product is classified as Dangerous Goods, per U.S. DOT regulations, under 49 CFR 172.101.

UN Identification Number: UN 1866
Proper Shipping Name: Resin solution, flammable
Hazard Class Number and Description: PG II
DOT Label(s) Required: Class 3 (Flammable)

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is classified as Dangerous Goods, per regulations of Transport Canada.

UN Identification Number: UN 1866
Proper Shipping Name: Resin solution, flammable
Hazard Class Number and Description: PG II
Packing Group: Class 3 (Flammable)
14. TRANSPORTATION INFORMATION (Continued)

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS (continued):

Special Provisions: 83
Explosive Limit & Limited Quantity Index: 5
ERAP Index: None
Passenger Carrying Ship Index: None
Passenger Carrying Road Or Rail Vehicle Index: 60

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is classified as dangerous goods, per the International Air Transport Association.

UN Identification Number: UN 1866
Proper Shipping Name: Resin solution, flammable
Hazard Class or Division: 3 (Flammable)
Hazard Label(s) Required: Class 3 (Flammable)
Packing Group: II
Excepted Quantities: E2
Passenger and Cargo Aircraft Packing Instruction: Y341
Passenger and Cargo Aircraft Maximum Net Quantity per Pkg.: 1 L
Cargo Aircraft Only Packing Instruction: 364
Cargo Aircraft Only Maximum Net Quantity per Pkg.: 60 L
Special Provisions: A3
ERG Code: 3L

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is classified as dangerous goods, per the International Maritime Organization.

UN No.: 1866
Proper Shipping Name: Resin solution, flammable
Hazard Class Number: 3 (Flammable)
Labels: Class 3 (Flammable)
Packing Group: II
Special Provisions: None
Limited Quantities: 5 L
Excepted Quantities: E2
Packing: Instructions: P001; Provisions: PP1
IBC: Instructions: IBC02; Provisions: None
Tanks: Instructions: T4; Provisions: T1, TP8
EmS: F-E, S-E
Stowage Category: Category B.
Marine Pollutant: No component of this product is designated by the IMO to be a Marine Pollutant.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:
U.S. SARA Reporting Requirements: The following 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.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>SECTION 302 EHS (TPQ)</th>
<th>SECTION 304 ROQ</th>
<th>SECTION 313 TRI (threshold)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(40 CFR 355, Appendix A)</td>
<td>(40 CFR Table 302.4)</td>
<td>(40 CFR 372.65)</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Toluene</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Xylene</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: Yes; 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 (RO): Toluene = 1000 lb (454 kg); Xylene = 100 lb (45.4 kg)

U.S. Clean Air Act (CA 112r) Threshold Quantity (TQ): Toluene and Xylene components are 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. This chemical is included on this list.

U.S. Clean Water Act Requirements: Toluene and Xylene (mixed) are designated as hazardous substances under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of these substances. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Toluene is a Toxic Pollutant designated pursuant to section 307(a)(1) of the Federal Water Pollution Control Act and are subject to effluent limitations.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): The Toluene component is on the California Proposition 65 lists. WARNING: This product contains a chemical known to the State of California to cause cancer or developmental harm.

ADDITIONAL CANADIAN REGULATIONS:
Canadian DSL/NDSSL Inventory Status: The components of this product are on the DSL Inventory.
ADDITIONAL CANADIAN REGULATIONS (continued):  
Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The Xylenes and Toluene components are on the CEPA Priority Substances 1 list, not considered as "TOXIC" under Section 64 of CEPA. Isopropyl Alcohol is a Substance with Greatest Potential for Human Exposure Substance on Environment Canada/Health Canada Pilot Project List (CEPA 1999, Section 73). Meets the categorization criteria: *may present, to individuals in Canada, the greatest potential for exposure; or *are persistent or bio-accumulative in accordance with the regulations, and inherently toxic to human beings or to non-human organisms, as determined by laboratory or other studies. Canadian WHMIS Regulations: This product is classified as a Controlled Product, Hazard Classes B2 (Flammable Liquid); E (Corrosive); D2A (Poisonous and Infectious Material, Other Effects, Very Toxic, Teratogenicity and Embryotoxicity), and D2B (Poisonous and Infectious Material, Other effects/Toxic: Eye Irritation, Skin Irritation, Skin Sensitization) as per the Controlled Product Regulations.

ADDITIONAL MEXICAN REGULATIONS:  
Mexican Workplace Regulations (NOM-018-STPS-2000): This product is classified as hazardous.

16. OTHER INFORMATION

U.S. ANSI STANDARD LABELING (Precautionary Statements): DANGER! FLAMMABLE LIQUID. MAY BE HARMFUL IF INHALED OR INGESTED. MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION; EYE IRRITATION MAY BE SEVERE. VAPORS MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS. INGESTION AND INHALATION MAY CAUSE SERIOUS ADVERSE EYE EFFECTS, CONTAINS COMPOUNDS THAT ARE SUSPECT CARCINOGENS AND REPRODUCTIVE TOXINS. Avoid contact with eyes, skin, and clothing. Avoid breathing mist, vapors or fume. 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 SYSTEM CLASSIFICATION:
Classification: Flammable Liquid Category 2, Reproductive Toxicity Category 2, Acute Oral Toxicity Category 4, Acute Inhalation Toxicity Category 4, Eye Damage Category 1, Skin Irritation Category 2, Specific Target Organ Toxicity (Inhalation-Central Nervous System, Respiratory Irritation) Single Exposure Category 3, Specific Target Organ Toxicity (Inhalation/Ingestion-Central Nervous System) Single Exposure Category 2, Skin Sensitization Category 1B
Signal Word: Danger
Precautionary Statements:
Hazard Symbols/Pictograms: GHS02, GHS05, 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 purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

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: October 2012: Up-date and revise entire SDS to include current GHS requirements; change in formulation. February 2013: Revision of SDS to reflect changes in formulation. November 2014: Revision due to formulation change. Up-date to most current format.

DATE OF PRINTING: November 17, 2014
DEFINITIONS OF TERMS

FLAMMABILITY HAZARD: 0 Minimal Hazard. Materials that will not burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes. 1 Slight Hazard. Materials that must be pre-heated before ignition can occur. Material requires considerable pre-heating, under all ambient temperature conditions before ignition and combustion can occur. This usually includes the following: Materials that will burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes or less; Liquids, solids and semisolids having a flash point at 89.3°C (200°F) or OSHA Class III; and Most ordinary combustible materials (e.g. wood, paper, etc.). 2 Moderate Hazard. Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not, under normal conditions, form hazardous atmospheres in air, but under high ambient temperatures or moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres with air. This usually includes the following: Liquids having a flash-point at or above 37.8°C (100°F); Solid materials in the form of coarse dusts that may burn rapidly but that generally do not form explosive atmospheres; Solid materials in a fibrous or shredded form that may burn rapidly and create flash fire hazards (e.g. cotton, sawdust, hemp), and Solids and semisolids (e.g. viscous and slow flowing as asphalt) that readily give off flammable vapors. 3 Serious Hazard. Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions. This usually includes the following: Liquids having a flash-point below 22.8°C (73°F) and having a boiling point at ambient temperature of 815.5°C (1500°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (100°F) (i.e. OSHA Class IIB and IIC). Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air (e.g., dusts of combustible solids or liquids or mixtures of flammable liquids); Materials that at a temperature preferably by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). 4 Severe Hazard. Materials that will or can completely vaporize at atmospheric pressure and normal ambient temperature or that are readily ignitable in air, and that will burn readily. This usually includes the following: Flammable liquids and gases, Flammable organic compounds. Any liquid or gaseous material that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. OSHA Class IIA); and Materials that ignite spontaneously when exposed to air at a temperature of 54.4°C (130°F) or below (pyrophoric). PHYSICAL HAZARD: 0 Water Reactivity. Materials that do not react with water. Organic Peroxides: Materials that are normally stable, even under fire conditions and will not react with water. Explosives: Substances that react explosively. Corrosives: Materials that react explosively. No 0 rating. Unstable Reactives: Substances that will not polymerize, decompose, condense, or self-react. 1 Water Reactivity. Materials that change or decompose upon exposure to moisture. Organic Peroxides: Materials that may decompose, undergo a chemical change or be ignited by water even in the absence of fire. Explosives: Materials that may explode, undergo a chemical change or be ignited by water even in the absence of fire. Corrosives: Materials that may react violently with water. 2 Water Reactivity. Materials that may react violently with water. Organic Peroxides: Materials that, in themselves, are normally unstable and will readily undergo violent chemical change, but will not detonate. These materials may also react violently with water. Explosives: Division 1.4 explosives. Explosives where the explosive effects are largely confined to the package and no projection of fragments of appreciable size or range are expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Compounded Gases: Pressured and meet OSHA definition but < 514.7 psi absolute. 3 Water Reactivity. Materials that may explode violently with water. Explosives: Division 1.2 explosives. Compounded Gases: Under Commission of OSHA. Solids: any material that, either in concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 3.7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65%)/cellulose mixture and the criteria for Packing Group I and II are not met. Unstable Reactives: Substances that may decompose, condense, or self-react, but only under conditions of high temperature and/or pressure and have little or no potential to cause significant heat generation or explosion hazard. Substances that readily undergo hazardous polymerization in the absence of inhibitors. 2 Water Reactivity. Materials that may react violently with water. Organic Peroxides: Materials that, in themselves, are normally unstable and will readily undergo violent chemical change, but will not detonate. These materials may also react violently with water. Explosives: Division 1.4 explosives. Explosives where the explosive effects are largely confined to the package and no projection of fragments of appreciable size or range are expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Compounded Gases: Pressured and meet OSHA definition but < 514.7 psi absolute. 3 Water Reactivity. Materials that may explode violently with water. Explosives: Division 1.2 explosives. Compounded Gases: Under Commission of OSHA. Solids: any material that, either in concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 3.7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1.1 aqueous sodium chloride solution (40%)/cellulose mixture and the criteria for Packing Group I and II are not met. Reactions: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a low potential (or low risk) for significant heat generation or explosion. Substances that readily form peroxides upon exposure to air or oxygen at room temperature. 3 Water Reactivity. Materials that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a low potential (or low risk) for significant heat generation or explosion. Substances that require detonation or explosive decomposition to cause the reaction. Substances that may react with explosive consequences, but require a strong initiating source or must be heated under confinement before initiation; or materials that react explosively with water. Explosives: Division 1.5 explosives. Explosives substances that may polymerize, decompose, condense, or self-react to the extent that an external fire or an explosion hazard. Compounded Gases: Pressure ≤ 514.7 psi absolute at 21.7°C (70°F) [500 psig]. Pyrophoric: No Rating. Oxidizers: Packing Group I oxidizers. Solids: any material that, in either concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 3.7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Unstable Reactives: Substances that may decompose, condense, or self-react at ambient temperature and/or pressure, and have a moderate potential (or moderate risk) to cause significant heat generation or explosion hazard. 4 Water Reactivity. Materials that react explosively with water requiring heat and oxygen. Flammable. Organic Peroxides: Materials that are readily capable of detonation or explosive decomposition at normal temperature and pressures. Explosives: Division 1.1 & 1.2 explosives. Explosive that can produce a major explosion hazard or have a projection hazard. A mass explosion is one that affects almost the entire load instantaneously. Pressured and meet OSHA definition. Ok I Oxidizers: No rating. Pyrophoric: Add to the definition of Flammability 4. Oxidizers: No 4 rating. Unstable Reactives: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a high potential (or high risk) to cause significant heat generation or explosion.
DEFINITIONS OF TERMS (Continued)

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

HEALTH HAZARD: 1 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 10,000 ppnm and dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 200 mg/kg. Materials with an LD₅₀ for acute oral toxicity greater than 2000 mg/kg. Materials with an SD₅₀ for acute oral toxicity greater than 2000 mg/kg. Materials essentially non-irritating to the respiratory tract, eyes, and skin. 4 Materials that, under emergency conditions, can cause significant irritation. Gases and vapors with an LC₅₀ for acute inhalation toxicity greater than 5,000 ppnm but less than or equal to 10,000 ppnm. Dusts and mists with an LC₅₀ for acute inhalation toxicity greater than 10 mg/kg but less than or equal to 20 mg/kg.

FLAMMABILITY HAZARD: 2 Liquefied gases that have no fire point when tested by ASTM D 92, a method which determines the minimum temperature at which a liquid is ignited under atmospheric conditions. Flash point is the lowest temperature at which a liquid gives off sufficient vapor to form an ignitable mixture with air near the surface of the liquid. Ignitability tests other than flash point tests may be used to evaluate fire hazards for materials under different conditions of confinement or combustion. Flammable or combustible liquid/solid content of more than 5000 ppm and that does not exhibit an autoignition temperature less than or equal to 500°C (932°F) when tested by a differential scanning calorimeter. 1 Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/ml and below 10 W/ml. 2 Materials that readily undergo violent chemical change at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/ml and below 100 W/ml. 3 Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. 4 Materials that are sensitive to thermal or mechanical shock at normal temperatures and pressures.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. LD₅₀: Lethal Dose (solids & liquids) that kills 50% of the exposed animals. LC₅₀: Lowest Concentration (gases) that kills 50% of the exposed animals.

EC: Bioconcentration Factor, which is used to determine if a substance is taken up by aquatic biota.

LOG K: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the aquatic environment.

IARC: International Agency for Research on Cancer. Not listed indicates that the chemical has not been evaluated by the Agency.

A±B±C±: Agents that are known to cause cancer in animals and may cause cancer in humans. A: Agents that are known to cause cancer in humans. B: Agents that are suspected of causing cancer in humans. C: Agents for which there is inadequate evidence of causing cancer in humans. The designation A±B±C± indicates that the chemical has not been evaluated or that the data are insufficient for evaluation.

WHMIS: A Canadian Hazard Communication Standard that is based on the U.S. OSHA Hazard Communication Standard. It is a system that provides for the identification and classification of hazardous materials, and the development and implementation of workplace health and safety programs.

DEFINITIONS OF TERMS (Continued)