1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

IDENTIFICATION of the SUBSTANCE or PREPARATION:

<table>
<thead>
<tr>
<th>TRADE NAME (AS LABELED):</th>
<th>Pecora Deck 802-FC Base Coat Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT DESCRIPTION:</td>
<td>Coating</td>
</tr>
<tr>
<td>CHEMICAL NAME/CLASS:</td>
<td>Amine Mixture</td>
</tr>
<tr>
<td>SYNONYMS:</td>
<td>Pecora Deck 802-FC Activator</td>
</tr>
<tr>
<td>RELEVANT USE:</td>
<td>Coating</td>
</tr>
<tr>
<td>USES ADVISED AGAINST:</td>
<td>Other Than Relevant Use</td>
</tr>
</tbody>
</table>

COMPANY/UNDERTAKING IDENTIFICATION:

<table>
<thead>
<tr>
<th>SUPPLIER/MANUFACTURER’S NAME:</th>
<th>Pecora Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>165 Wambold Road, Harleysville, PA 19438</td>
</tr>
<tr>
<td>EMERGENCY PHONE:</td>
<td>800-424-9300 (CHEMTREC, 24-hours)</td>
</tr>
<tr>
<td>BUSINESS PHONE:</td>
<td>215-723-6051 (Mon–Fri, 8 AM–5 PM ET)</td>
</tr>
</tbody>
</table>

PREPARATION DATE: April 24, 2019
REVISION DATE: April 24, 2019

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 (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS 2015 and the Global Harmonization Standard. 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:**
- Acute Oral Toxicity Cat. 4
- Acute Dermal Toxicity Cat. 4
- Skin Irritation Cat. 2A
- Eye Irritation Cat. 2A
- STOT (Inhalation) Se Cat. 3
- Skin Sensitization Cat. 1B
- STOT (Dermal-Blood Effects) Re Cat. 2
- Aquatic Acute Toxicity Cat. 1
- Aquatic Chronic Toxicity Cat. 1

**Signal Word:** Warning

**Hazard Statement Codes:** H302 + H312


**Hazard Symbols/Pictograms:** GHS07, GHS08, GHS09

**EMERGENCY OVERVIEW:**

**Physical Description:** This product is a clear, amber liquid with a characteristic odor of amines.

**Health Hazards:** CAUTION! May cause eye, skin, and respiratory tract irritation, especially if exposure is prolonged. May be harmful if ingested or in contact with the skin. May cause skin sensitization in persons susceptible to amines. Skin contact may cause cyanosis, which is an inability of the blood to carry oxygen, resulting in a bluish color of the skin.

**Flammability Hazard:** This product may be combustible and ignite if exposed to direct flame or to high temperature for a prolonged period.

**Reactivity Hazard:** Due to components, this product may react exothermically with halons, isocyanates and acids and may react violently with oxygen.

**Environmental Hazard:** This product has not been tested for environmental impact. However, one component is considered a marine pollutant which can cause acute and chronic toxicity to aquatic organisms.

See Section 16 for full text of classification.

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

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

See Section 16 for definitions of ratings

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

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

**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 product has a classification under the Global Harmonization Standard, as applied under OSHA regulations, as given earlier in this section. See Section 16 for full classification details.
3. MATERIAL IDENTIFICATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>LABEL ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Amine 1</td>
<td>40.0-50.0</td>
<td>HARMONISED CLASSIFICATION AND LABELLING (CLP900)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Skin Irritation Cat. 2, Eye Irritation Cat. 2A, STOT RE Cat. 2, Aquatic Acute Toxicity Cat. 1, Aquatic Chronic Toxicity Cat. 1</td>
</tr>
<tr>
<td>Proprietary Amine 2</td>
<td>40.0-50.0</td>
<td>SELF CLASSIFICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 5, Skin Irritation Cat. 2, Eye Irritation Cat. 2A, STOT (Inhalation-Respirator Irritation) SE Cat. 3, Skin Sensitization Cat. 1, STOT (Dermal-Blood Effects) RE Cat. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: H302 + H312, H315, H319, H373, H400, H410</td>
</tr>
<tr>
<td>Proprietary Amine 3</td>
<td>10.0-20.0</td>
<td>SELF CLASSIFICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Acute Oral Toxicity Cat. 5, Acute Dermal Toxicity Cat. 5, Skin Irritation Cat. 2, Eye Irritation Cat. 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: H303 + H313, H315, H319</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 dusts of this material are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

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

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

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

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

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED: Treat symptoms and eliminate exposure. Persons suffering allergic reactions must seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Unknown.

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: Due to amine content, halons should not be used due to potential reaction.

PROTECTION OF FIREFIGHTERS:

Special Hazards Arising From the Substance: This product is combustible and can be ignited when exposed to high temperature for a prolonged period. Not sensitive to mechanical impact under normal conditions. Not sensitive to static discharge under normal conditions.

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 if exposed to ignition source. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. 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.
6. ACCIDENTAL RELEASE MEASURES (Continued)

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 number for the US Coast Guard National Response Center is 1-800-424-8802.

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

7. HANDLING and STORAGE

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

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

PRODUCT END USE: This product is used as a coating. 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>Proprietary Amine 1</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Proprietary Amine 2</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Proprietary Amine 3</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
</tbody>
</table>

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

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


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 or sprays from this product are created during use, use appropriate respiratory protection. If necessary, use only respiratory protection authorized in applicable regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece or demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under appropriate regulations.

9. PHYSICAL and CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORM</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>MOLECULAR WEIGHT</td>
<td>Mixture</td>
</tr>
<tr>
<td>ODOR</td>
<td>Amine-like</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>Not available</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>8.38</td>
</tr>
<tr>
<td>RELATIVE VAPOR DENSITY (air = 1)</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>COLORS</td>
<td>Clear, amber</td>
</tr>
<tr>
<td>MOLECULAR FORMULA</td>
<td>Mixture</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>DENSITY</td>
<td>8.38 lb/gal</td>
</tr>
<tr>
<td>VAPOR PRESSURE, mm Hg @ 20°C</td>
<td>Not established</td>
</tr>
<tr>
<td>EVAPORATION RATE (BuAc = 1)</td>
<td>Not available</td>
</tr>
</tbody>
</table>
9. PHYSICAL and CHEMICAL PROPERTIES (Continued)

SOLUBILITY IN WATER: Insoluble.
MELTING/FREEZING POINT: Not available.
VOC: 96 g/L
FLASH POINT: Not available.
FLAMMABLE LIMITS (in air by volume, %): Lower: Not established; Upper: Not established.

OTHER SOLUBILITIES: Not available.
BOILING POINT: Not available.
WEIGHT % VOC: Not applicable.
AUTOIGNITION TEMPERATURE: Not established.

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: Due to components, this product is expected to be incompatible with halons, isocyanate, acids and oxygen.


POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: Due to components, this product may react exothermically with halons, isocyanates and acids and may react violently with oxygen.

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: Brief contact with the liquid or vapors from this product and the eyes can cause irritation, reddening and watering. Eye contact will cause moderate irritation, depending on the duration and concentration of exposure. Depending on the duration of skin contact, skin exposures can cause reddening, discomfort or irritation. Prolonged contact may cause inflammation, redness, rash, swelling and blistering.

Repeated skin contact may cause defatting and dermatitis. Skin sensitization may occur in persons sensitive to amines. Brief contact with the liquid or vapors from this product and the eyes can cause irritation, reddening and watering.

Skin Absorption: Prolonged skin contact may cause adverse systemic toxicity by skin absorption as described under ‘Other Health Effects’.

Ingestion: If the product is swallowed, it can irritate the mouth, throat, and other tissues of the gastro-intestinal system and may cause nausea, vomiting, and diarrhea. Ingestion of large amounts may be harmful and cause systemic toxicity. Ingestion of large amount may be fatal.

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. Coughing with chest pain or tightness may also occur, frequently at night. These symptoms may occur during exposure or may be delayed several hours.

Injection: Accidental injection of this product (e.g. puncture with a contaminated object) may cause burning, redness, and swelling in addition to the wound.

Other Health Effects: One component of this product may cause cyanosis due to skin contact, which is an inability of the blood to carry oxygen. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Elevated blood pressure, bluish skin coloration, dizziness, tremors, convulsions, coma, and dermatitis may occur.

TARGET ORGANS: Acute: Skin, eyes, respiratory system. Chronic: Blood system, skin.

CHRONIC EFFECTS: Prolonged or repeated skin contact may cause dermatitis (dry, red skin) and/or sensitization to the skin.

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.

<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>Proprietary Amine 1</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>Proprietary Amine 2</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>Proprietary Amine 3</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>
</tbody>
</table>

IRRITANCY OF PRODUCT: This product may irritate contaminated tissue, especially if contact is prolonged.

SENSITIZATION TO THE PRODUCT: This product contains amine compounds, which may cause skin sensitization and allergic reactions in susceptible persons.

TOXICOLOGICAL SYNERGISTIC PRODUCTS: None known.

REPRODUCTIVE TOXICITY INFORMATION: This product has not been tested for reproductive toxicity.

Mutagenicity/Embryotoxicity/ Teratogenicity/Reproductive Toxicity: No component is known to cause reproductive toxicity in humans.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

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

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential.
12. ECOLOGICAL INFORMATION (Continued)

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

PROPERITARY AMINE 2:
- EC50 (Pseudomonas putida bacteria) 24 hours = 170 mg/L
- EC50 (Daphnia magna Strauss water flea) 48 hours = 0.5 mg/L
- LC50 (Leuciscus idus) 48 hours = 194 mg/L

PROPERITARY AMINE 3:
- EC50 (Brachydanio rerio) 96 hours = > 2,150 mg/L; OECD Guideline 203 static

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

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

13. DISPOSAL CONSIDERATIONS

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

U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: This product is classified as Dangerous Goods, per U.S. DOT regulations, under 49 CFR 172.101.
- UN Identification Number: UN 3082
- Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Proprietary Amine)
- Hazard Class Number and Description: 9 (Miscellaneous Hazard)
- Packing Group: PG III
- DOT Label(s) Required: Class 9 (Miscellaneous Hazard)
- Marine Pollutant: This product meets the criteria of a Marine Pollutant (as defined by 49 CFR 172.101).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is classified as Dangerous goods, per the International Air Transport Canada.
- UN Identification Number: UN 3082
- Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Proprietary Amine)
- Hazard Class Number and Description: 9 (Miscellaneous Hazard)
- Packing Group: PG III
- Hazard Label(s) Required: Class 9 (Miscellaneous Package Orientation)
- Special Provisions: 16, 99
- Excepted Quantities: E1
- Explosive Limit & Limited Quantity Index: 5 L
- ERAP Index: None
- Passenger Carrying Ship Index: None
- Passenger Carrying Road or Rail Vehicle Index: None

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is classified as dangerous goods, per the International Air Transport Association.
- UN Identification Number: UN 3082
- Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Proprietary Amine)
- Hazard Class or Division: 9 (Miscellaneous Hazard)
- Hazard Label(s) Required: Class 9 (Miscellaneous Package Orientation)
- Packing Group: III
- Excepted Quantities: E1
- Passenger and Cargo Aircraft Packing Instruction: 964
- Cargo Aircraft Only Packing Instruction: 964
- Cargo Aircraft Only Maximum Net Quantity per Pkg.: 450 L
- Special Provisions: A97, A158, A197
- ERG Code: 9L
- Note: Packagings of this product must carry the Packaging Orientation (This Way Up) label for shipment. The minimum label dimensions are 74 x 105 mm. The label should be red (Pantone Colour No. 186U) or Black on a contrasting background. See 7.4.4. Package Orientation in the IATA Dangerous Goods Regulations.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is classified as dangerous goods, per the International Maritime Organization.
- UN No.: 3082
- Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Proprietary Amine)
- Hazard Class Number: 9 (Miscellaneous Hazard)
- Labels: Class 9 (Miscellaneous Hazard)
- Packing Group: III
- Special Provisions: 179, 274, 335, 909
- Limited Quantities: 5 L
INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (continued):

<table>
<thead>
<tr>
<th>Excepted Quantities:</th>
<th>E1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing:</td>
<td>Instructions: P001; Provisions: LP01</td>
</tr>
<tr>
<td>IBCs:</td>
<td>Instructions: IBC03; Provisions: None</td>
</tr>
<tr>
<td>Tanks:</td>
<td>Instructions: T4; Provisions: TP2, TP29</td>
</tr>
<tr>
<td>EmS:</td>
<td>F-A, S-F</td>
</tr>
<tr>
<td>Stowage Category:</td>
<td>Category A</td>
</tr>
<tr>
<td>Segregation:</td>
<td>None</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>This product meets the criteria of a marine pollutant.</td>
</tr>
</tbody>
</table>

U.S. REGULATIONS:

U.S. SARA Reporting Requirements: No 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.

U.S. SARA 302 Extremely Hazardous Threshold Planning Quantity (TPQ): Not applicable.

U.S. SARA 304 Extremely Hazardous Reportable Quantity (RQ): Not applicable.

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

U.S. CLEAN AIR ACT (CA 112) THRESHOLD QUANTITY (TQ): Not applicable.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): No component of this product is on the State of California Proposition 65 Lists.

CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: The components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The Proprietary Amines 2 component is subject to CEPA Reporting Requirements: Miscellaneous Substance on Environment Canada/Health Canada Pilot Project List (CEPA 1999, Section 73). Meets categorization criteria: *may present, to individuals in Canada, the greatest potential for exposure; or *are persistent or bioaccumulative 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 (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.

15. REGULATORY INFORMATION

16. OTHER INFORMATION

WARNINGS (per ANSI Z129.1): WARNING! MAY BE HARMFUL IF INGESTED OR BY SKIN CONTACT. MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION. MAY CAUSE SKIN SENSITIZATION MAY BE COMBUSTIBLE – MAY IGNITE IF EXPOSED TO DIRECT FLAME OR IF HIGHLY HEATED FOR A PROLONGED PERIOD. 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: Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Skin Irritation Category 2, Eye Irritation Category 2A, Specific Target Organ Toxicity (Inhalation-Respiratory Irritation) Single Exposure Category 3, Skin Sensitization Category 1B, Specific Target Organ Effects (Dermal-Blood Effects) Repeated Exposure Category 2, Aquatic Acute Toxicity Category 1, Aquatic Chronic Toxicity Category 1

Signal Word: Warning

Hazard Statements: H302 + H312: Harmful if swallowed or in contact with skin. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H317: May cause an allergic skin reaction. H373: May cause damage to blood system by skin absorption through prolonged or repeated exposure. H410: Very toxic to aquatic life with long-lasting effects.

Precautionary Statements:


GLOBAL HARMONIZATION LABELING AND CLASSIFICATION (continued):

Precautionary Statements (continued):


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

Hazard Symbols/PICTograms: GHS07, GHS08, GHS09

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. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY OF ANY KIND, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE. 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 should be used with due regard for health. Because the material is not fully understood, 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 all 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:

Revision: 1.11

DATE OF PRINTING: May 17, 2019

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

KEY ACRONYMS:

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

CHILLING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

DFG MAKs: Federal Republic of Germany Maximum Concentrations Values in the workplace.

Exposure limits are given as TWA (Time Weighted Average) or PEAK (short term exposure) value.

DFG MAK Germ Cell Mutagen Categories: 1: Germ cell mutagens that have been shown to increase the mutation frequency in the progeny of exposed humans. 2: Germ cell mutagens that have been shown to increase the mutation frequency in the progeny of exposed animals. 3A: Substances that have been shown to induce genetic damage in germ cells of humans, of animals, or which produce mutagenic effects in somatic cells of mammals in vivo and have been shown to reach the germ cells in an active form. 3B: Substances that are suspected of being germ cell mutagens because of their genotoxic effect on germ cell in vitro model systems. Therefore, a Category 3B is used for germ cell mutagens cannot apply. At some time in the future, it can be conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA (e.g. purely aneugenic substances) if research results make this seem sensible.) 4: Germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their genetic risk for humans is expected not to be significant.

DFG MAK Pregnancy Risk Group Classification:

Group A: A risk of damage to the developing embryo or fetus when MAK and BAT values are observed. Group B: A risk of damage to the developing embryo or fetus when MAK and BAT values are observed; exposure limits may also result in embryo or fetus when MAK and BAT values are observed. Group C: There is no reason to fear a damage to the developing embryo or fetus when MAK and BAT values are observed. Group D: Classification in one of the groups A-C is not yet possible because, although the data available may indicate a trend, they are not sufficient for final evaluation.

IDLH: Immediately Dangerous to Life and Health. This level represents a concentration from which one can escape within 30 minutes without suffering escape-preventing or permanent injury.

LOQ: Limit of Quantitation

NE: Not Established. When no exposure guidelines are established, an entry of NE is made for reference.

NIC: Notice of Intended Change

NOSI CEILING: The exposure that shall not be exceeded during any part of the workday. If instantaneous exposure is not feasible, the ceiling shall be assumed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during a workday.

NOSI RELs: NIOSH’s Recommended Exposure Limits.

PEL: OSHA’s Permissible Exposure Limits. This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40919). Both the current PELs and the vacated PELs are indicated. The phrase, “Vacated 1989 PEL” is placed next to the PEL that was vacated by Court Order.

SKIN: Used when there is a danger of cutaneous absorption.

KEY ACRONYMS (continued):

STEEL: Short Term Exposure Limit, usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded even for a moment during a workday, even if the 8-hour TWA is in the STEL-TWA or REL-TWA.

TLY: Threshold Limit Value. An airborne concentration of a substance that represents conditions under which nearly all workers would be exposed to a concentration that would not be expected to cause adverse effect. The duration must be considered, including the 8-hour.

TWA: Time Weighted Average exposure concentration for a conventional 8-hour (TL) TWA or up to a 10-hour (REL) workday and a 40-hour workweek.

WEEL: Workplace Environmental Exposure Limits from the AIHA.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM

HAZARD RATINGS (continued): HEALTH HAZARD (continued): Moderate Hazard: Temporary or transitory injury may occur; permanent injury may affect the skin through sensitization. Skin Irritation: Moderately irritating. PII or Draize > 5, with no destruction of dermal tissue. Eye Irritation: Moderately to severely irritating; reversible corneal opacity; corneal involvement or irritation clearing in 8-21 days. Draize = 26 – 0, with reversible effects. Oral Toxicity LD₅₀ Rat ≤ 50-500 mg/kg. Dermal Toxicity LC₅₀ Rat ≤ 200-1000 mg/kg. Inhalation Toxicity LC₅₀ Rat ≤ 4 hrs Rab ≤ 0.5-2 mg/L. 3 Serious Hazard: Major injury likely unless prompt action is taken and medical treatment is given; high level of toxicity; corrosive. Skin Irritation: Severely irritating and/or corrosive; may cause destruction of dermal tissue, skin burns, and dermal necrosis. PII or Draize > 5-8, with destruction of tissue. Eye Irritation: Corrosive, irreversible destruction of ocular tissue; corneal involvement or irritation persisting for more than 21 days. Draize > 80 with effects irreversible in 21 days. Oral Toxicity LD₅₀ Rat ≤ 50 mg/kg. Dermal Toxicity LC₅₀ Rat ≤ 20-200 mg/kg. Inhalation Toxicity LC₅₀ Rat ≤ 4 hrs Rab ≤ 0.05-0.5 mg/L. 4 Severe Hazard: Life-threatening; major or permanent damage may result from single or repeated exposures; extremely toxic; irreversible injury may result from brief contact. Skin Irritation: Not appropriate. Do not rate as a 4, based on skin irritation alone. Eye Irritation: Not appropriate. Do not rate as a 4, based on eye irritation alone. Oral Toxicity LD₅₀, Rat, ≤ 1 mg/kg. Dermal Toxicity LC₅₀ Rat or Rabbit ≤ 20 mg/kg. Inhalation Toxicity LC₅₀ Rab ≤ 0.05-0.5 mg/L. 5 FLAMMABILITY HAZARD: Minimal Hazard: Materials that will not burn in air when exposure is below 5% (or 100°C (212°F)) of flash point. 6 Severe Hazard: Materials that will burn vigorously in air, with a flash point of 23°C (73°F) or below.

OTHER INFORMATION:

Bridging principles were used to classify this product.

Hazardous Materials Identification System Hazard Ratings (continued):

Health hazard: 1: Highly Hazardous; May cause death, severe tissue damage, irreversible injury or systemic effects. 2: Hazardous; May cause death, systemic effects, or irreversible injury. 3: Moderately Hazardous; May cause death, irreversible injury, systemic effects, or systemic effects if repeated exposure. 4: Hazardous: May cause death, irreversible injury or systemic effects. 5: Hazardous; May cause death, irreversible injury, systemic effects or systemic effects if repeated exposure. 6: Hazardous; May cause death, irreversible injury or systemic effects, or systemic effects if repeated exposure, or may be unstable or reactive. 7: Hazardous; May cause death, irreversible injury or systemic effects, or systemic effects if repeated exposure, or may be unstable or reactive, or may react, but only under specific conditions.

Bridging principles were used to classify this product.

Hazardous Materials Identification System Hazard Ratings (continued):

Health hazard: 1: Highly Hazardous; May cause death, severe tissue damage, irreversible injury or systemic effects. 2: Hazardous; May cause death, systemic effects, or irreversible injury. 3: Moderately Hazardous; May cause death, irreversible injury, systemic effects, or systemic effects if repeated exposure. 4: Hazardous: May cause death, irreversible injury or systemic effects. 5: Hazardous; May cause death, irreversible injury, systemic effects or systemic effects if repeated exposure. 6: Hazardous; May cause death, irreversible injury or systemic effects, or systemic effects if repeated exposure, or may be unstable or reactive. 7: Hazardous; May cause death, irreversible injury or systemic effects, or systemic effects if repeated exposure, or may react, but only under specific conditions.

Bridging principles were used to classify this product.
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

**DEFINITIONS OF TERMS (Continued)**

**NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):**

**HEALTH HAZARD:** 1 (continued): Liquids with a flash point greater than 35°C (95°F) in a water-miscible solution or dispersion with a water non-combustible liquid/solid content of more than 85% by weight. Liquids that have no fire point tested by ASTM D 92. Standard Test for Flash Points of Petroleum Products by Cleveland Open Cup, up to the flash point of the liquid or to a temperature at which the sample being tested shows an obvious physical change. Combustible

1. **Organic Peroxides:** Materials that may polymerize, decompose, condense, or self-react at ambient temperature or pressure (or at elevated temperatures less than or equal to 100°C (212°F)) with a high potential to cause significant heat generation or explosion.

2. **Flammable solids:** Materials that cause a flash 

3. **Flash Point:** Temperature of a flammable vapor or gas/air mixture that will ignite and burn with a flame.

4. **Lethal Concentration (gases):** Lethal Concentration (gases) that kills 50% of the exposed animals. Lc50, Lethal Concentration (gases) that kills 50% of the exposed animals. ppm Concentration expressed in parts per million (ppm) of air. Complex mixture expressed in weight of substance per volume of air. ppm Concentration expressed in parts per million (ppm) of air.

5. **Lethal Dose (solids & liquids):** Lowest dose (or concentration) that causes mortality or causes tissue or organ injury.

6. **Flash Point (liquids):** Temperature of a flammable liquid that has a vapor concentration of 10% or more by volume, which ignites when exposed to a heat source. A flash point test indicates the lowest temperature at which a flammable liquid will form an ignitable mixture with air near the surface of the liquid or within the test vessel used.

7. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate a self-sustained combustion in air with no other source of ignition. LEL Lowest concentration of a gas in air that will just form an ignitable mixture with air.

8. **LEL:** Lowest concentration of a gas in air that will just form an ignitable mixture with air.

9. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate a self-sustained combustion in air with no other source of ignition. LEL Lowest concentration of a gas in air that will just form an ignitable mixture with air.

10. **LEL:** Lowest concentration of a gas in air that will just form an ignitable mixture with air.

11. **Oxidizers:** Materials that, in themselves are normally stable, even under fire exposure conditions, but react explosively with water without requiring heat or confinement. Oxidizers: Any material that can react explosively with water when in contact with it, or when heated, or when exposed to a temperature at which the sample being tested shows an obvious physical change. Combustible

12. **Oxidizers:** Materials that can react explosively with water when in contact with it, or when heated, or when exposed to a temperature at which the sample being tested shows an obvious physical change. Combustible

13. **Water Reactivity:** Reactions of water with materials that are capable of igniting or exploding when exposed to water. Water Reactivity: Reactivity and reaction rate) at 250°C (482°F) below 0.01 W/mL and below 10 W/mL. 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 10 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source.

14. **Flash Point (liquids):** Temperature of a flammable liquid that has a vapor concentration of 10% or more by volume, which ignites when exposed to a heat source. A flash point test indicates the lowest temperature at which a flammable liquid will form an ignitable mixture with air near the surface of the liquid or within the test vessel used.

15. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate a self-sustained combustion in air with no other source of ignition. LEL Lowest concentration of a gas in air that will just form an ignitable mixture with air.

16. **LEL:** Lowest concentration of a gas in air that will just form an ignitable mixture with air.

17. **Oxidizers:** Materials that, in themselves are normally stable, even under fire exposure conditions, but react explosively with water without requiring heat or confinement. Oxidizers: Any material that can react explosively with water when in contact with it, or when heated, or when exposed to a temperature at which the sample being tested shows an obvious physical change. Combustible

18. **Oxidizers:** Materials that can react explosively with water when in contact with it, or when heated, or when exposed to a temperature at which the sample being tested shows an obvious physical change. Combustible

19. **Water Reactivity:** Reactions of water with materials that are capable of igniting or exploding when exposed to water. Water Reactivity: Reactivity and reaction rate) at 250°C (482°F) below 0.01 W/mL and below 10 W/mL. 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 10 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that may require a high energy source.

20. **Flash Point (liquids):** Temperature of a flammable liquid that has a vapor concentration of 10% or more by volume, which ignites when exposed to a heat source. A flash point test indicates the lowest temperature at which a flammable liquid will form an ignitable mixture with air near the surface of the liquid or within the test vessel used.

21. **Autoignition Temperature:** Minimum temperature of a solid, liquid, or gas required to initiate a self-sustained combustion in air with no other source of ignition. LEL Lowest concentration of a gas in air that will just form an ignitable mixture with air.

22. **LEL:** Lowest concentration of a gas in air that will just form an ignitable mixture with air.
DEFINITIONS OF TERMS (Continued)

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. Tlmg: Median threshold limit. log K_{ow} or log K_{oc}: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the environment.

REGULATORY INFORMATION: 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: