Material Name: Primer E - Part A

Product Use
Primer

Manufacturer Information
USA and Puerto Rico
MAPEI
1144 East Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-954-246-8888

Canada
MAPEI
2900 Francis-Hughes Avenue
Laval, QC H7L 3J5
Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:
(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-631-996-6666

---

* * * Section 2 - Hazards Identification * * *

Emergency Overview
This product has been evaluated using criteria specified in 29CFR 1910.1200 (Hazard Communication Standard). This product may cause sensitization by inhalation and skin contact.

Hazard Statements
CAUTION! IRRITANT. ALLERGEN. Irritating to eyes and skin. May cause sensitization by skin contact. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

Potential Health Effects: Eyes
This product is irritating to the eyes.

Potential Health Effects: Skin
This product is irritating to the skin. Prolonged contact with this product may cause allergic skin sensitization reactions.

Potential Health Effects: Ingestion
Acute ingestion may result in mild gastrointestinal distress.

Potential Health Effects: Inhalation
This product may cause irritation to the respiratory system.

Medical Conditions Aggravated by Exposure
Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects
None identified.

HMIS Ratings:
Health: 2
Fire: 0
Reactivity: 0
Pers. Prot.: Safety glasses, gloves
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe  * = Chronic hazard

---

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

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>25085-99-8</td>
<td>Epoxy Resin</td>
<td>60-100</td>
</tr>
<tr>
<td>68609-97-2</td>
<td>Alkyl Epoxy Resin</td>
<td>10-30</td>
</tr>
<tr>
<td>28064-14-4</td>
<td>Epoxy Resin</td>
<td>5-10</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
<td>0.1-1.0</td>
</tr>
</tbody>
</table>
*** Section 4 - First Aid Measures ***

First Aid: Eyes
In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

First Aid: Skin
For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion
For ingestion, flush out mouth with water. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting.

First Aid: Inhalation
If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If symptoms persist, get medical attention.

First Aid: Notes to Physician
Provide general supportive measures and treat symptomatically.

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

General Fire Hazards
See Section 9 for Flammability Properties.
This product is combustible at high temperatures.

Hazardous Combustion Products
Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media
Dry chemical (preferred), foam, water.

Fire Fighting Equipment/Instructions
Firefighters should wear full protective gear.

NFPA Ratings: Health: 2    Fire: 0    Reactivity: 0
Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe

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

Personal Precautions
Wear appropriate protective equipment and clothing during clean-up.

Containment Procedures
Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container.

Environmental Precautions
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Clean-Up Procedures
Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Wear appropriate protective equipment and clothing during clean-up.

Evacuation Procedures
None identified.

Special Procedures
Regulations vary. Consult local authorities before disposal.

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

Handling Procedures
Avoid getting this material into contact with your skin and eyes. Use this product with adequate ventilation. Wash hands after handling and before eating. Keep out of the reach of children.

Storage Procedures
Store at ambient temperature and atmospheric pressure. Store away from strong oxidizers.
**Section 8 - Exposure Controls / Personal Protection**

**A: Component Exposure Limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>OSHA (Final)</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Manitoba</th>
<th>New Brunswick</th>
<th>NW Territories</th>
<th>Nova Scotia</th>
<th>Nunavut</th>
<th>Ontario</th>
<th>Quebec</th>
<th>Saskatchewan</th>
<th>Yukon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (13463-67-7)</td>
<td>10 mg/m³ TWA</td>
<td>15 mg/m³ TWA (total dust)</td>
<td>10 mg/m³ TWA</td>
<td>IARC Category 2B - Possible Human Carcinogen</td>
<td>10 mg/m³ TWA (total dust); 3 mg/m³ TWA (respirable fraction)</td>
<td>10 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass)</td>
<td>10 mg/m³ TWA</td>
<td>5 mg/m³ TWA (respirable mass); 10 mg/m³ TWA (total mass)</td>
<td>10 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
</tr>
</tbody>
</table>

**Engineering Controls**

Use general ventilation.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/Face**

Wear safety glasses with side shields.

**Personal Protective Equipment: Skin**

The use of nitrile-latex gloves is recommended.

**Personal Protective Equipment: Respiratory**

Not normally needed. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

**Personal Protective Equipment: General**

Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

**Section 9 - Physical & Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Gray liquid</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility (H₂O)</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.11</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>13 g/L (mixture)</td>
</tr>
<tr>
<td>Octanol/H₂O Coeff.</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200° F</td>
</tr>
<tr>
<td>Flash Point Method</td>
<td>CC</td>
</tr>
<tr>
<td>Upper Flammability Limit (UFL)</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower Flammability Limit (LFL)</td>
<td>N/A</td>
</tr>
<tr>
<td>Burning Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Physical Properties: Additional Information**

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.
**Section 10 - Chemical Stability & Reactivity Information**

**Chemical Stability**
This is a stable material.

**Chemical Stability: Conditions to Avoid**
Do not freeze.

**Incompatibility**
This product may react with strong oxidizing agents.

**Hazardous Decomposition**
Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

**Possibility of Hazardous Reactions**
Will not occur.

**Section 11 - Toxicological Information**

**Acute Dose Effects**

A: General Product Information
No information available for the product.

B: Component Analysis - LD50/LC50

- **Alkyl Epoxy Resin (68609-97-2)**
  Oral LD50 Rat: 17100 mg/kg

- **Titanium dioxide (13463-67-7)**
  Oral LD50 Rat: >10000 mg/kg

**Carcinogenicity**

A: General Product Information
No information available for the product.

B: Component Carcinogenicity

- **Titanium dioxide (13463-67-7)**
  - ACGIH: A4 - Not Classifiable as a Human Carcinogen
  - NIOSH: potential occupational carcinogen
  - IARC: Monograph 93 [in preparation]; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

**Sensitization**
This product may be sensitizing by prolonged skin contact.

**Section 12 - Ecological Information**

**Ecotoxicity**

A: General Product Information
No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity
No ecotoxicity data are available for this product's components.

**Section 13 - Disposal Considerations**

**US EPA Waste Number & Descriptions**

A: General Product Information
Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

B: Component Waste Numbers
No EPA Waste Numbers are applicable for this product's components.
Material Safety Data Sheet

Material Name: Primer E - Part A
ID: SAH00191

Disposal Instructions
Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

International Transportation Regulations
Not regulated as dangerous goods.

*** Section 15 - Regulatory Information ***

US Federal Regulations
A: General Product Information
All components are on the U.S. EPA TSCA Inventory List. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

B: Component Analysis
None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations
A: General Product Information
Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canadian WHMIS Information
A: General Product Information

B: Component Analysis - WHMIS IDL
No components are listed in the WHMIS IDL.

Additional Regulatory Information
A: General Product Information
Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>CAN</th>
<th>EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Resin</td>
<td>25085-99-8</td>
<td>Yes</td>
<td>DSL No</td>
<td>EINECS</td>
</tr>
<tr>
<td>Alkyl Epoxy Resin</td>
<td>68609-97-2</td>
<td>Yes</td>
<td>DSL EINECS</td>
<td></td>
</tr>
<tr>
<td>Epoxy Resin</td>
<td>28064-14-4</td>
<td>Yes</td>
<td>DSL No</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Yes</td>
<td>DSL EINECS</td>
<td></td>
</tr>
</tbody>
</table>

*** Section 16 - Other Information ***

Other Information
Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.
Material Safety Data Sheet

Material Name: Primer E - Part A

Key/Legend
NA = Not available or Not Applicable. NFPA = National Fire Protection Association. HMIS = Hazardous Material Information System. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NJTSR = New Jersey Trade Secret Registry.

Contact:     Product Safety Specialist
Contact Phone:  1-954-246-8888

End of Sheet SAH00191
Material Safety Data Sheet

Material Name: Primer E - Part B

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

Material Name: Primer E - Part B

Product Use
Primer

Manufacturer Information
USA and Puerto Rico
MAPEI
1144 East Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-954-246-8888

Canada
MAPEI
2900 Francis-Hughes Avenue
Laval, QC H7L 3J5
Phone: 1-450-662-1212

IN THE EVENT OF A CHEMICAL EMERGENCY INVOLVING A SPILL, LEAK, FIRE, EXPLOSION, EXPOSURE OR ACCIDENT, CONTACT THE FOLLOWING NUMBERS:

Emergency 24 hour numbers:
(USA) CHEMTREC 1-800-424-9300
(Canada) CANUTEC 1-631-996-6666

**Section 2 - Hazards Identification**

Emergency Overview
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). Contact with this material will cause irritation and burns to the skin and eyes.

Hazard Statements
DANGER! CORROSIVE. Causes burns to the skin and eyes. Irritating to respiratory system. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

Potential Health Effects: Eyes
This product is severely irritating to the eyes and may cause eye burns.

Potential Health Effects: Skin
This product is severely irritating to the skin and may cause burns. Prolonged contact with this product may cause allergic skin sensitization reactions.

Potential Health Effects: Ingestion
Ingestion of this product may cause nausea, vomiting and diarrhea.

Potential Health Effects: Inhalation
This product is irritating to the respiratory system.

Medical Conditions Aggravated by Exposure
Hypersensitivity to product, allergies, and skin or respiratory disorders

Potential Environmental Effects
None identified.

HMIS Ratings: Health: 2 Fire: 1 Reactivity: 0 Pers. Prot.: Safety glasses, gloves, synthetic apron
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

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

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>84852-15-3</td>
<td>4-Nonylphenol, branched</td>
<td>30-60</td>
</tr>
<tr>
<td>68951-85-9</td>
<td>Epoxy resin</td>
<td>10-30</td>
</tr>
<tr>
<td>111-40-0</td>
<td>Diethylene triamine</td>
<td>10-30</td>
</tr>
<tr>
<td>123-00-2</td>
<td>N-Aminopropylmorpholine</td>
<td>7-13</td>
</tr>
<tr>
<td>111-41-1</td>
<td>Aminoethylethanolamine</td>
<td>1-5</td>
</tr>
</tbody>
</table>
**Section 4 - First Aid Measures**

**First Aid: Eyes**
In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

**First Aid: Skin**
For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.

**First Aid: Ingestion**
For ingestion, flush out mouth with water. Get medical attention or advice. Do not induce vomiting.

**First Aid: Inhalation**
If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If symptoms persist, get medical attention.

**First Aid: Notes to Physician**
Provide general supportive measures and treat symptomatically.

**Section 5 - Fire Fighting Measures**

**General Fire Hazards**
See Section 9 for Flammability Properties.
This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a moderate fire hazard.

**Hazardous Combustion Products**
Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

**Extinguishing Media**
Dry chemical (preferred), foam, water.

**Fire Fighting Equipment/Instructions**
Firefighters should wear full protective clothing including self contained breathing apparatus.

**NFPA Ratings:**
- **Health:** 2
- **Fire:** 1
- **Reactivity:** 0

**Hazard Scale:**
- 0 = Minimal
- 1 = Slight
- 2 = Moderate
- 3 = Serious
- 4 = Severe

**Section 6 - Accidental Release Measures**

**Personal Precautions**
Wear appropriate protective equipment and clothing during clean-up.

**Containment Procedures**
Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container.

**Environmental Precautions**
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Clean-Up Procedures**
Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Keep out of the reach of children.

**Evacuation Procedures**
None identified.

**Special Procedures**
Regulations vary. Consult local authorities before disposal.
**Section 7 - Handling and Storage**

**Handling Procedures**
Avoid getting this material into contact with your skin and eyes. Avoid breathing vapors or mists of this product. Wash hands after handling and before eating. Keep out of the reach of children.

**Storage Procedures**
Store in a cool, dry, well-ventilated area. Store at ambient temperature and atmospheric pressure. Store away from strong oxidizers.

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

**A: Component Exposure Limits**

<table>
<thead>
<tr>
<th>Material</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>New Brunswick</th>
<th>NW Territories</th>
<th>Nova Scotia</th>
<th>Nunavut</th>
<th>Ontario</th>
<th>Quebec</th>
<th>Saskatchewan</th>
<th>Yukon</th>
<th>3-(Dimethylamino)-propylamine (109-55-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene triamine (111-40-0)</td>
<td>1 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route</td>
<td>1 ppm TWA; 4 mg/m3 TWA; Potential for dermal absorption</td>
<td>1 ppm TWA; 4.2 mg/m3 TWA; Substance may be readily absorbed through intact skin</td>
<td>Sensitizer; 1 ppm TWA; Skin notation</td>
<td>1 ppm TWA; 4.2 mg/m3 TWA; Skin - potential for cutaneous absorption</td>
<td>1 ppm TWA; 4 mg/m3 TWA; 3 ppm STEL; 13 mg/m3 STEL; Skin notation</td>
<td>1 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route</td>
<td>1 ppm TWA; 4 mg/m3 TWA; 3 ppm STEL; 13 mg/m3 STEL; Skin notation</td>
<td>1 ppm TWA; 4 mg/m3 TWA; 3 ppm STEL; 13 mg/m3 STEL; Skin notation</td>
<td>1 ppm TWAEV; 4 mg/m3 TWAEV; Absorption through skin, eyes, or mucous membranes</td>
<td>1 ppm TWAEV; 4.2 mg/m3 TWAEV; Skin designation</td>
<td>1 ppm TWA; 2 ppm STEL</td>
<td>1 ppm TWA; 4 mg/m3 TWA; 1 ppm STEL; 4 mg/m3 STEL; Skin notation</td>
</tr>
</tbody>
</table>

| 3-(Dimethylamino)-propylamine (109-55-7) | Ontario | 0.5 ppm TWAEV; 2 mg/m3 TWAEV |

**Engineering Controls**
Use general ventilation.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Eyes/face**
Wear safety glasses with side shields.

**Personal Protective Equipment: Skin**
The use of nitrile-latex gloves is recommended.

**Personal Protective Equipment: Respiratory**
If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

**Personal Protective Equipment: General**
Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material.

**Section 9 - Physical & Chemical Properties**
### Material Safety Data Sheet

**Material Name:** Primer E - Part B  
**ID:** SAH00192

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Amber liquid</th>
<th>Odor:</th>
<th>Amine odor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State:</strong></td>
<td>Liquid</td>
<td><strong>pH:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong></td>
<td>N/A</td>
<td><strong>Vapor Density:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>N/A</td>
<td><strong>Melting Point:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Solubility (H2O):</strong></td>
<td>N/A</td>
<td><strong>Specific Gravity:</strong></td>
<td>0.96</td>
</tr>
<tr>
<td><strong>Evaporation Rate:</strong></td>
<td>N/A</td>
<td><strong>VOC:</strong></td>
<td>13 g/L (mixture)</td>
</tr>
<tr>
<td><strong>Octanol/H2O Coeff.:</strong></td>
<td>N/A</td>
<td><strong>Flash Point:</strong></td>
<td>&gt;200° F</td>
</tr>
<tr>
<td><strong>Flash Point Method:</strong></td>
<td>CC</td>
<td><strong>Upper Flammability Limit (UFL):</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Lower Flammability Limit (LFL):</strong></td>
<td>N/A</td>
<td><strong>Burning Rate:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>Auto Ignition:</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Physical Properties: Additional Information**

The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

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

**Chemical Stability**
- Stable under normal conditions.

**Chemical Stability: Conditions to Avoid**
- Do not freeze.

**Incompatibility**
- This product may react with strong acids, bases and oxidizing agents.

**Hazardous Decomposition**
- Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this product may emit fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic compounds.

**Possibility of Hazardous Reactions**
- Will not occur.

#### **Section 11 - Toxicological Information**

**Acute Dose Effects**

**A: General Product Information**
- No information available for the product.

**B: Component Analysis - LD50/LC50**

- **4-Nonylphenol, branched (84852-15-3)**
  - Oral LD50 Rat: 580 mg/kg; Dermal LD50 Rabbit: 2031 mg/kg

- **Diethylene triamine (111-40-0)**
  - Oral LD50 Rat: 819 mg/kg; Dermal LD50 Rabbit: 672 mg/kg

- **N-Aminopropylmorpholine (123-00-2)**
  - Oral LD50 Rat: 3560 mg/kg; Dermal LD50 Rabbit: 1230 µL/kg

- **Aminoethyl ethanolamine (111-41-1)**
  - Oral LD50 Rat: 2000 mg/kg; Dermal LD50 Rat: 2250 mg/kg; Dermal LD50 Rabbit: 3560 mg/kg

- **2,4,6-Tri(dimethylaminomethyl)phenol (90-72-2)**
  - Oral LD50 Rat: 1000 mg/kg; Dermal LD50 Rat: 1280 mg/kg

- **3-(Dimethylamino)-propylamine (109-55-7)**
Carcinogenicity
A: General Product Information
No information available for the product.

B: Component Carcinogenicity
None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Sensitization
No information available for the product.

*** Section 12 - Ecological Information ***

Ecotoxicity
A: General Product Information
No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched (84852-15-3)</td>
<td></td>
</tr>
<tr>
<td>96 Hr LC50 Pimephales promelas</td>
<td>0.135 mg/L [flow-through]</td>
</tr>
<tr>
<td>96 Hr LC50 Lepomis macrochirus</td>
<td>0.1351 mg/L [flow-through]</td>
</tr>
<tr>
<td>96 Hr EC50 Selenastrum capricornutum</td>
<td>0.41 mg/L</td>
</tr>
<tr>
<td>48 Hr EC50 Daphnia magna</td>
<td>0.140 mg/L</td>
</tr>
</tbody>
</table>

Diethylene triamine (111-40-0)

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50 Leuciscus idus</td>
<td>430 mg/L [semi-static]</td>
</tr>
<tr>
<td>96 Hr LC50 Poecilia reticulata</td>
<td>248 mg/L [static]</td>
</tr>
<tr>
<td>96 Hr LC50 Poecilia reticulata</td>
<td>1014 mg/L [semi-static]</td>
</tr>
<tr>
<td>72 Hr EC50 Selenastrum capricornutum</td>
<td>1164 mg/L</td>
</tr>
<tr>
<td>96 Hr EC50 Selenastrum capricornutum</td>
<td>345.6 mg/L</td>
</tr>
<tr>
<td>96 Hr EC50 Scenedesmus subspicatus</td>
<td>592 mg/L</td>
</tr>
</tbody>
</table>

Aminoethylethanolamine (111-41-1)

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50 Pimephales promelas</td>
<td>728 mg/L</td>
</tr>
<tr>
<td>72 Hr EC50 Scenedesmus subspicatus</td>
<td>210 mg/L</td>
</tr>
</tbody>
</table>

3-(Dimethylamino)-propylamine (109-55-7)

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr Leuciscus idus</td>
<td>122 mg/L [static]</td>
</tr>
<tr>
<td>72 Hr EC50 Scenedesmus subspicatus</td>
<td>56.2 mg/L</td>
</tr>
<tr>
<td>96 Hr EC50 Scenedesmus subspicatus</td>
<td>57.5 mg/L</td>
</tr>
</tbody>
</table>
**Section 13 - Disposal Considerations**

**A: General Product Information**
No additional information available.

**B: Component Waste Numbers**
No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**
Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

**Section 14 - Transportation Information**

**US DOT Information**
Shipping Name: Corrosive liquid, n.o.s. (4-Nonylphenol, branched, Diethylene triamine)
UN/NA #: UN1760  Hazard Class: 8  Packing Group: III

**IATA Information**
Shipping Name: Corrosive liquid, n.o.s. (4-Nonylphenol, branched, Diethylene triamine)
UN #: UN1760  Hazard Class: 8  Packing Group: III

**TDG Information**
Shipping Name: Corrosive liquid, n.o.s. (4-Nonylphenol, branched, Diethylene triamine)
UN/NA #: UN1760  Hazard Class: 8  Packing Group: III

**Section 15 - Regulatory Information**

**US Federal Regulations**

**A: General Product Information**
All components are on the U.S. EPA TSCA Inventory List. All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List unless otherwise noted.

**B: Component Analysis**
None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**C: Component Marine Pollutants**
This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>DOT regulated marine pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched</td>
<td>84852-15-3</td>
<td></td>
</tr>
</tbody>
</table>

**State Regulations**

**A: General Product Information**
Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene triamine</td>
<td>111-40-0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>N-Aminopropylmorpholine</td>
<td>123-00-2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Aminoethylethanolamine</td>
<td>111-41-1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3-(Dimethylamino)-propylamine</td>
<td>109-55-7</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
Canadian WHMIS Information

A: General Product Information

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Minimum Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene triamine</td>
<td>111-40-0</td>
<td>0.1 %</td>
</tr>
<tr>
<td>N-Aminopropylmorpholine</td>
<td>123-00-2</td>
<td>1 %</td>
</tr>
<tr>
<td>Aminoethylethanolamine</td>
<td>111-41-1</td>
<td>0.1 %</td>
</tr>
</tbody>
</table>

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>CAN</th>
<th>EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched</td>
<td>84852-15-3</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
<tr>
<td>Epoxy resin</td>
<td>68951-85-9</td>
<td>Yes</td>
<td>DSL</td>
<td>No</td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>111-40-0</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
<tr>
<td>N-Aminopropylmorpholine</td>
<td>123-00-2</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
<tr>
<td>Aminoethylethanolamine</td>
<td>111-41-1</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
<tr>
<td>2,4,6-Tri(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
<tr>
<td>3-(Dimethylamino)-propylamine</td>
<td>109-55-7</td>
<td>Yes</td>
<td>DSL</td>
<td>EINECS</td>
</tr>
</tbody>
</table>

*** Section 16 - Other Information ***

Other Information

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

NA = Not available or Not Applicable. ACGIH = American Conference of Governmental Industrial Hygienists. NFPA = National Fire Protection Association. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration, NJTSR = New Jersey Trade Secret Registry.

Contact:   Product Safety Specialist
Contact Phone:  1-954-246-8888

End of Sheet SAH00192