1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: General Purpose Epoxy HARDENER
Product type: Epoxy Hardener
Company address: Henkel Corporation
              1001 Trout Brook Crossing
              Rocky Hill, Connecticut 06067

Contact Information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.loctite.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>%</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide resin</td>
<td>60-100</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>10-30</td>
<td>1 ppm TWA (skin)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>4,4’-Isopropylidenediphenol</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Epichlorohydrin-4,4’-isopropylidene diphenol resin</td>
<td>5-10</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Silica, amorphous, fumed, crystalline-free</td>
<td>1-5</td>
<td>10 mg/m³ TWA inhalable</td>
<td>3 mg/m³ TWA respirable</td>
<td>6 mg/m³ TWA</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS: HEALTH: 3*
Color: Yellow
Odor: Mild

DANGER: CAUSES EYE AND SKIN BURNS.
MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Relevant routes of exposure: Eye contact, Ingestion, Inhalation, Skin contact

Potential Health Effects

Inhalation: Allergic respiratory reaction. May cause respiratory tract irritation. May cause irritation to nose and throat.

Skin contact: May cause skin burns. Allergic skin reaction. Harmful if absorbed through skin. Rash. Redness.

Eye contact: Burns. Severe eye irritation. Redness. Tissue damage.

Ingestion: May be harmful if swallowed. May cause burns of mouth and throat if swallowed.


See Section 11 for additional toxicological information.

Item No.: 21427_150453 / IDH No. 701945
4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if symptoms occur.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. Get medical attention immediately.

Notes to physician: None.

5. FIRE-FIGHTING MEASURES

Flash point: Greater than 93ºC (200ºF) Tagliabue closed cup

Autoignition temperature: Not available

Flammable/Explosive limits-lower %: Not available

Flammable/Explosive limits-upper %: Not available

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special fire fighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Unusual fire or explosion hazards: In the event of fire, cool tanks with water spray.


6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Prevent product from entering drains or open waters.

Clean-up methods: Remove all ignition sources. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling: Keep away from heat, spark and flame. Do not breathe mist or vapors. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage: Store at or below 37.8°C (100°F). Store in original container until ready to use. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

Incompatible products: Refer to Section 10.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Use local exhaust ventilation to maintain airborne concentrations below established exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Skin protection: Chemical resistant, impermeable gloves. Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

Eye/face protection: Chemical splash goggles or safety glasses with side shields.

Item No.: 21427_150453 / IDH No. 701945  Product name: General Purpose Epoxy HARDENER
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Paste
Color: Yellow
Odor: Mild
Vapor pressure: Less than 5 mm Hg at 20°C (68°F)
Ph: Not applicable
Boiling point/range: Greater than 149°C (300°F)
Melting point/range: Not available
Specific gravity: 0.9813
Vapor density: Not available
Evaporation rate: Not available
Solubility in water: Slightly soluble
Partition coefficient (n-octanol/water): Not available
VOC content: 14.08%; 138 grams/liter

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous polymerization: Will not occur.
Hazardous decomposition products: None
Conditions to avoid: Excessive heat. Storage with incompatible materials.

11. TOXICOLOGICAL INFORMATION

Carcinogen Status

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide resin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>89410-23-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>111-40-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4`-Isopropylidenediphenol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>80-05-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epichlorohydrin-4,4`-isopropylidene diphenol resin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>25068-38-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous, fumed, crystalline-free</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>112945-52-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Literature Referenced Target Organ & Other Health Effects

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide resin</td>
<td>Corrosive, Irritant</td>
</tr>
<tr>
<td>88410-23-1</td>
<td></td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>Allergen, Eyes, Irritant</td>
</tr>
<tr>
<td>111-40-0</td>
<td></td>
</tr>
<tr>
<td>4,4`-Isopropylidenediphenol</td>
<td>Allergen, Blood, Irritant, Kidney, Spleen, Reproductive</td>
</tr>
<tr>
<td>80-05-7</td>
<td></td>
</tr>
<tr>
<td>Epichlorohydrin-4,4`-isopropylidene diphenol resin</td>
<td>Allergen, Irritant</td>
</tr>
<tr>
<td>25068-38-6</td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous, fumed, crystalline-free</td>
<td>Nuisance dust</td>
</tr>
<tr>
<td>112945-52-5</td>
<td></td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION
Ecological information: Not available

13. DISPOSAL CONSIDERATIONS
Information provided is for unused product only.
Recommended method of disposal: Dispose according to EPA and local governmental regulations.
EPA hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION
The shipping classifications in this section are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

U.S. Department of Transportation Ground (49 CFR):
Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (diethylenetriamine)
Hazard class or division: 8
Identification number: UN 3267
Packing group: III
Exceptions: (Not more than 5L) Consumer Commodity ORM-D

International Air Transportation (ICAO/IATA):
Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (Diethylenetriamine)
Hazard class or division: 8
Identification number: UN3267
Packing group: III

WaterTransportation (IMO/IMDG):
Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (Diethylenetriamine)
Hazard class or division: 8
Identification number: UN3267
Packing group: III
Marine pollutant: None known

15. REGULATORY INFORMATION
United States Regulatory Information
TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None.
CERCLA/SARA Section 302 EHS: None.
CERCLA/SARA Section 311/312:
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).
California Proposition 65: This product contains a chemical known to the State of California to cause cancer.

Canada Regulatory Information
CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Domestic Substances List.
16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 2, 11, 15

Prepared by: Gary Pierson, Sr. Product Safety and Regulatory Affairs Specialist
For Safety and Regulatory Information contact:
Product Safety and Regulatory Affairs,
Rocky Hill, CT.
860-571-5204

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