1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite Plastic Epoxy-Resin
Product type: Epoxy resin
Item number: 1360788
Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, CT 06067

2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**HMIS:**
- Physical state: Liquid
- Color: Translucent, Clear
- Odor: None

**HEALTH:** 2
**FLAMMABILITY:** 1
**PHYSICAL HAZARD:** 0

Personal Protection: See MSDS Section 8

**WARNING:** MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects
- **Inhalation:** Mild respiratory tract irritation.
- **Skin contact:** Allergic skin reaction. Moderate skin irritation. Itching. Redness.
- **Eye contact:** Moderate eye irritation. Redness.
- **Ingestion:** Not expected under normal conditions of use.

Existing conditions aggravated by exposure: Skin disorders. Skin allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epichlorohydrin-4,4'-isopropylidene diphenol resin</td>
<td>25068-38-6</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

- **Inhalation:** Move to fresh air. If symptoms develop and persist, get medical attention.
- **Skin contact:** Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
- **Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- **Ingestion:** Keep individual calm. DO NOT induce vomiting unless directed to do so by medical personnel. If symptoms develop and persist, get medical attention.
5. FIRE FIGHTING MEASURES

Flash point: > 249 °C (> 480.2 °F) Pensky Martens closed cup
Autoignition temperature: Not available
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Extinguishing media: Foam, dry chemical or carbon dioxide.
Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards: In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways.
Clean-up methods: Remove all sources of ignition. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling: Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed.
Storage: 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epichlorohydrin-4,4’-isopropylidene diphenol resin</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.
Eye/face protection: Safety goggles or safety glasses with side shields.
Skin protection: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Translucent, Clear
Odor: None
Odor threshold: Not available
pH: Not applicable
Vapor pressure: 0.03 mm Hg
Boiling point/range: > 260.2 °C (> 500.4 °F)
Melting point/range: Not available
Specific gravity: 1.17
Vapor density: Not available
Flash point: > 249 °C (> 480.2 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Not available
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available
VOC content: 0.1 % (value for resin and hardener together)

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous reactions: Will not occur.
Hazardous decomposition products: None
Conditions to avoid: Excessive heat. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epichlorohydrin-4,4’-isopropylidene diphenol resin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Hazardous components: Epichlorohydrin-4,4’-isopropylidene diphenol resin
Health Effects/Target Organs: Allergen, Irritant

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class or division:</td>
<td>None</td>
</tr>
<tr>
<td>Identification number:</td>
<td>None</td>
</tr>
<tr>
<td>Packing group:</td>
<td>None</td>
</tr>
</tbody>
</table>

IDH number: 1360788
Product name: Loctite Plastic Epoxy-Resin
### International Air Transportation (ICAO/IATA)
- **Proper shipping name:** Not regulated
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None

### Water Transportation (IMO/IMDG)
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorohydrine resin)
- **Hazard class or division:** 9
- **Identification number:** UN 3082
- **Packing group:** III

## 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 above reporting de minimus
- **CERCLA/SARA Section 302 EHS:** None above reporting de minimus
- **CERCLA/SARA Section 311/312:** Immediate Health
- **CERCLA/SARA 313:** None above reporting de minimus
- **California Proposition 65:** No California Proposition 65 listed chemicals are known to be present.

### Canada Regulatory Information
- **CEPA DSL/NDSL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
- **WHMIS hazard class:** D.2.B

## 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Regulatory Affairs

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation has no control. It is the user’s responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.
1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite Plastic Epoxy- Hardener
Product type: Epoxy Hardener
Item number: 1360788
Region: United States

Company address:
Henkel Corporation
One henkel Way
Rocky Hill, CT 06067

Contact information:
Telephone: 800.624.7767
Emergency telephone: 800.424.9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Liquid
Color: Amber, Translucent
Odor: Amine, Mercaptan

HMIS:
HEALTH: *3
FLAMMABILITY: 1
PHYSICAL HAZARD: 0

DANGER:
CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS.
MAY CAUSE ALLERGIC SKIN REACTION.
HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects

Inhalation: Respiratory tract burns. May cause respiratory tract irritation. May cause irritation to nose and throat. Lung damage.
Skin contact: May cause skin burns. May cause allergic skin reaction. May be harmful if absorbed through skin. Rash. Redness. Tissue damage.
Eye contact: Burns. Severe eye irritation. Redness. Tissue damage.
Ingestion: May be harmful if swallowed. May cause burns of mouth and throat if swallowed.

Existing conditions aggravated by exposure:
Eye, skin, and respiratory disorders. Skin allergies. Asthma.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptot</td>
<td>72244-98-5</td>
<td>60 - 100</td>
</tr>
<tr>
<td>m-Phenylenedibis(methylamine)</td>
<td>1477-55-0</td>
<td>10 - 30</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Move 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 footwear. Wash clothing before reuse. Thoroughly clean shoes before reuse. If symptoms develop and persist, get medical attention.

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. Never give anything by mouth to an unconscious person. Keep individual calm. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point: > 93 °C (> 199.4 °F) 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 firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards: In case of fire, keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways.
Clean-up methods: Remove all sources of ignition. 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 gas/fumes/vapor/spray. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Storage: 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.
### Hazardous components

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>m-Phenylenebis(methylamine)</td>
<td>0.1 mg/m^3 Ceiling (SKIN)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Phenol</td>
<td>5 ppm TWA (SKIN)</td>
<td>5 ppm (19 mg/m^3) TWA (SKIN)</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Engineering controls:**
Use local exhaust ventilation if the potential for airborne exposure exists.

**Respiratory protection:**
Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Eye/face protection:**
Safety goggles or safety glasses with side shields.

**Skin protection:**
Chemical resistant, impermeable gloves.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical state:** Liquid
- **Color:** Amber, Translucent
- **Odor:** Amine, Mercapta
- **Odor threshold:** Not available
- **pH:** Not available
- **Boiling point/range:** Not available
- **Melting point/range:** Not available
- **Specific gravity:** 1.04
- **Vapor density:** Not available
- **Flash point:** > 93 °C (> 199.4 °F) Tagliabue closed cup
- **Flammable/Explosive limits - lower:** Not available
- **Flammable/Explosive limits - upper:** Not available
- **Autoignition temperature:** Not available
- **Evaporation rate:** Not available
- **Solubility in water:** Insoluble
- **Partition coefficient (n-octanol/water):** Not available
- **VOC content:** 3.77 %; 0.38 g/l EPA Method 24

### 10. STABILITY AND REACTIVITY

- **Stability:** Stable
- **Hazardous reactions:** Will not occur.
- **Conditions to avoid:** Excessive heat. Store away from incompatible materials.
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
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<tr>
<td>Poly[(oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>m-Phenylenebis(methylamine)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Phenol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[(oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop</td>
<td>No Data</td>
</tr>
<tr>
<td>m-Phenylenebis(methylamine)</td>
<td>Irritant, Liver, Kidney, Corrosive</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>Irritant, Allergen</td>
</tr>
<tr>
<td>Phenol</td>
<td>Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular</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: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The shipping classifications in this sections 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: Amines, liquid, corrosive, n.o.s. (aliphatic Amine)
- Hazard class or division: 8
- Identification number: UN 2735
- Packing group: II

**International Air Transportation (ICAO/IATA)**
- Proper shipping name: Amines, liquid, corrosive, n.o.s. (aliphatic Amine)
- Hazard class or division: 8
- Identification number: UN 2735
- Packing group: II

**Water Transportation (IMO/IMDG)**
- Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (aliphatic Amine)
- Hazard class or division: 8
- Identification number: UN 2735
- Packing group: II

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 above reporting de minimus

CERCLA/SARA Section 302 EHS: Phenol (CAS# 108-95-2).
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
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). Phenol (CAS# 108-95-2).

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: First issue.

Prepared by: Regulatory Affairs

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.