HENKEL CONSUMER ADHESIVES
AVON, OH 44011
TELEPHONE: (440) 937-7000
MATERIAL SAFETY DATA SHEET

HARDENER 01-81502
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Item No.: HARDENER 01-81502
Part of Kit: 01-81502
Product Type: Epoxy hardener

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients | CAS No. | %
--- | --- | ---
Polymercaptan | Proprietary | 80-85
Substituted aminophenol | 90-72-2 | 5-10
Nonylphenol | 25154-52-3 | 3-5
Heptakis (dipropylene glycol) triphosphate | 116265-68-0 | 1-3

Ingredients which have exposure limits

<table>
<thead>
<tr>
<th>Exposure Limits (TWA)</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients</td>
<td>(TLV)</td>
<td>(PEL)</td>
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3. HAZARDS IDENTIFICATION

Toxicity:
Skin and eye irritant. Possible respiratory irritant. The aminophenol can cause severe irritation and may be corrosive on prolonged contact. It may be a sensitizing. It can also be corrosive to eye tissue leading to permanent injury including blindness. It may irritate the respiratory tract and may cause delayed lung damage upon overexposure to fumes or vapors. It can also cause fatigue, muscular weakness, labored breathing, or gastrointestinal irritation if swallowed. The relatively low concentration of the aminophenol in the product may minimize some or all of these effects.

Primary Routes of Entry:
Skin, ingestion, inhalation.

Signs and Symptoms of Exposure:
Eye, skin, respiratory, or gastrointestinal irritation. It is possible that such irritation may be severe and lead to burns. Allergic reactions may occur.
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3. HAZARDS IDENTIFICATION

Existing Conditions
Aggravated by Exposure: Skin, eye, lung conditions.

Ingredients | Literature Referenced | Target Organ and Other Health Effects | Carcinogen NTP IARC OSHA
------------|----------------------|-------------------------------------|------------------------
Polymercaptan | No Data | | NO NO NO |
Substituted aminophenol | ALG IRR | | NO NO NO |
Nonylphenol | ALG COR IRR KID | | NO NO NO |
Heptakis (dipropylene glycol) triphosphate | No Data | | NO NO NO |

Abbreviations
ALG Allergen
IRR Irritant
COR Corrosive
KID Kidney

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention.

Skin Contact: Wash with soap and water.

Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: More than 200°F

Recommended Extinguishing Agents: Carbon dioxide, foam, dry chemical

Special Firefighting Procedures: Not available

Hazardous Products formed by Fire or Thermal Decomp: Oxides of carbon, sulfur, nitrogen and phosphorus, phosphate/phosphate esters, hydrocarbon fragments, hydrogen sulfide, phenols, phosphine.

Unusual Fire or Explosion Hazards: None

Explosive Limits: (% by volume in air) Lower Not available
(% by volume in air) Upper Not available
6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak: Take up with an inert absorbent. Store in a closed container until disposal.

7. HANDLING AND STORAGE

Safe Storage: Store below 110°F.
(Contact Loctite Customer Service 1-800-243-4874 for shelf life information)
Handling: Avoid skin contact. Keep away from eyes. Do not breathe vapors.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Rubber or plastic gloves.
Ventilation: Local exhaust ventilation should be provided.
Respiratory: NIOSH/MSHA approved organic cartridge respirator if ventilation is inadequate.

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless, viscous liquid.
Odor: Unpleasant
Boiling Point: More than 300°F
pH: Does not apply
Solubility in Water: Slight
Specific Gravity: 1.08
Volatile Organic Compound (EPA Method 24) 11.08%; 119.7 grams per liter
Vapor Pressure: Less than 5mm at 80°F
Vapor Density: Not available
Evaporation Rate (Ether = 1) Not available.

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): None
11. TOXICOLOGICAL INFORMATION

See Section 3.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal:
- EPA Hazardous Waste Number
  - Incinerate following EPA and local regulations.
  - NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)
- Domestic Ground Transport
  - Proper Shipping Name: Unrestricted
  - Hazard Class or Division: Unrestricted
  - Identification Number: None
  - Marine Pollutant: None
- IATA
  - Proper Shipping Name: Unrestricted
  - Class or Division: Unrestricted
  - UN or ID Number: None

15. REGULATORY INFORMATION

CA Proposition 65: No Californis Proposition 65 chemicals are known to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code:
- Health Hazard: 2
- Fire Hazard: 1
- Reactivity Hazard: 0
- Specific Hazard: Does not apply

Estimated HMIS(R) Code:
- Health Hazard: 2*
- Flammability Hazard: 1
- Reactivity Hazards: 0
- Personal Protection: See Section 8.

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HMIS is a registered trademark of the National Paint and Coatings Assn.
16. OTHER INFORMATION

Prepared by:
Company: Safety, Health and Regulatory Affairs - North America,
Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067
(24hr.) Phone: (860) 571-5100