



Revision Number: 005.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

|                            |   |                             |  |
|----------------------------|---|-----------------------------|--|
| <b>Product name:</b>       | <b>LOCTITE EA E-20HP B HARDENER</b><br><b>known as DB EPOXY ADH E-20HP 50</b><br><b>ML HARD</b> | <b>IDH number:</b>          | 701980   |
| <b>Product type:</b>       | Epoxy Hardener  | <b>Item number:</b>         | 29314_209533   |
| <b>Restriction of Use:</b> | None identified   | <b>Region:</b>              | United States  |
| <b>Company address:</b>    | Henkel Corporation<br>One Henkel Way<br>Rocky Hill, Connecticut 06067                           | <b>Contact information:</b> | Telephone: (860) 571-5100<br>MEDICAL EMERGENCY Phone: Poison Control Center<br>1-877-671-4608 (toll free) or 1-303-592-1711<br>TRANSPORT EMERGENCY Phone: CHEMTREC<br>1-800-424-9300 (toll free) or 1-703-527-3887<br>Internet: www.henkelna.com |

**2. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

**DANGER:** CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.  
MAY CAUSE AN ALLERGIC SKIN REACTION.

| HAZARD CLASS       | HAZARD CATEGORY |
|--------------------|-----------------|
| SKIN CORROSION     | 1B              |
| SERIOUS EYE DAMAGE | 1               |
| SKIN SENSITIZATION | 1               |

**PICTOGRAM(S)****Precautionary Statements**

|                    |   |
|--------------------|---|
| <b>Prevention:</b> | Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.  |
| <b>Response:</b>   | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. |
| <b>Storage:</b>    | Store locked up.  |
| <b>Disposal:</b>   | Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.   |

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous Component(s)           | CAS Number  | Percentage* |
|----------------------------------|-------------|-------------|
| Polyglycol diamine               | Proprietary | 10 - 30     |
| Acid salt                        | Proprietary | 5 - 10      |
| Glycerol                         | 56-81-5     | 1 - 5       |
| Substituted aminophenol          | Proprietary | 1 - 5       |
| Diethyleneglycol monoethyl ether | 111-90-0    | 1 - 5       |
| Alcohol derivative               | Proprietary | 0.1 - 1     |
| Substituted aminophenol          | Proprietary | 0.1 - 1     |
| Ethylene glycol                  | 107-21-1    | 0.1 - 1     |

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.   |
| <b>Skin contact:</b> | Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. |
| <b>Eye contact:</b>  | Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.  |
| <b>Ingestion:</b>    | DO NOT induce vomiting unless directed to do so by medical personnel. Give a conscious person several glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.      |
| <b>Symptoms:</b>     | See Section 11.  |

### 5. FIRE FIGHTING MEASURES

|   |  |
|---|--|
| <b>Extinguishing media:</b>               | Foam, dry chemical or carbon dioxide.  |
| <b>Special firefighting procedures:</b>   | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.   |
| <b>Unusual fire or explosion hazards:</b> | Personnel in vicinity and downwind should be evacuated. Burning produces obnoxious and toxic fumes.  |
| <b>Hazardous combustion products:</b>     | Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Acrolein. Ammonia. Hydrogen fluoride. Nitric acid. Toxic fumes. Irritating vapors. |

### 6. ACCIDENTAL RELEASE MEASURES

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

|                                   |  |
|-----------------------------------|--|
| <b>Environmental precautions:</b> | Do not allow product to enter sewer or waterways.  |
| <b>Clean-up methods:</b>          | Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal. |

## 7. HANDLING AND STORAGE

**Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation. Keep container closed.

**Storage:** Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Do not store in reactive metal containers.

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

## 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 Component(s)           | ACGIH TLV                     | OSHA PEL   | AIHA WEEL                   | OTHER |
|----------------------------------|-------------------------------|--|-----------------------------|-------|
| Polyglycol diamine               | None                          | None   | None                        | None  |
| Acid salt                        | None                          | None   | None                        | None  |
| Glycerol                         | None                          | 5 mg/m3 PEL<br>Respirable fraction.<br>15 mg/m3 PEL Total<br>dust. | None                        | None  |
| Substituted aminophenol          | None                          | None   | None                        | None  |
| Diethyleneglycol monoethyl ether | None                          | None   | 25 ppm (140 mg/m3)<br>TWA   | None  |
| Alcohol derivative               | None                          | None   | 10 ppm (44.20<br>mg/m3) TWA | None  |
| Substituted aminophenol          | None                          | None   | None                        | None  |
| Ethylene glycol                  | 100 mg/m3 Ceiling<br>Aerosol. | None   | None                        | None  |

**Engineering controls:** Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

**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. Full face protection should be used if the potential for splashing or spraying of product exists.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid  
**Color:** Light yellow  
**Odor:** Mild  
**Odor threshold:** Not available.  
**pH:** Not applicable  
**Vapor pressure:** Not available.  
**Boiling point/range:** Not available.  
**Melting point/ range:** Not available.  
**Specific gravity:** 1.15  
**Vapor density:** Not available.  
**Flash point:** > 93.4 °C (> 200.12 °F) Setaflash 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:** Partially soluble  
**Partition coefficient (n-octanol/water):** Not available.

|                                   |                             |
|-----------------------------------|-----------------------------|
| <b>VOC content:</b>               | < 1.0 %; < 10 g/l Estimated |
| <b>Viscosity:</b>                 | Not available.              |
| <b>Decomposition temperature:</b> | Not available.              |

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Stability:</b>                        | Stable under normal conditions of storage and use.   |
| <b>Hazardous reactions:</b>              | None under normal processing.  |
| <b>Hazardous decomposition products:</b> | Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Acrolein. Ammonia. Nitric acid. Hydrogen fluoride. Toxic fumes. Irritating vapors.                   |
| <b>Incompatible materials:</b>           | Oxidizing agents. Organic acids. Mineral acids. Peroxides. Sodium hypochlorite. This product slowly corrodes copper, aluminum, zinc and galvanized surfaces. |
| <b>Reactivity:</b>                       | Not available.   |
| <b>Conditions to avoid:</b>              | Keep away from heat, ignition sources and incompatible materials.  |

## 11. TOXICOLOGICAL INFORMATION

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Relevant routes of exposure:</b> | Skin, Inhalation, Eyes, Ingestion |
|-------------------------------------|-----------------------------------|

## Potential Health Effects/Symptoms

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | Mists, vapors or liquid may cause severe irritation or burns.   |
| <b>Skin contact:</b> | Causes skin burns. May cause allergic skin reaction.  |
| <b>Eye contact:</b>  | Causes serious eye damage.  |
| <b>Ingestion:</b>    | If ingested, severe burns of the mouth and throat may occur, as well as perforation of the esophagus and the stomach. |

| Hazardous Component(s)           | LD50s and LC50s  | Immediate and Delayed Health Effects  |
|----------------------------------|--|---|
| Polyglycol diamine               | None   | Corrosive   |
| Acid salt                        | None   | No Records  |
| Glycerol                         | None   | Blood, Irritant, Kidney, Nuisance dust  |
| Substituted aminophenol          | None   | Irritant, Allergen  |
| Diethyleneglycol monoethyl ether | Oral LD50 (RAT) = 1,920 mg/kg<br>Oral LD50 (RAT) = 5.54 g/kg<br>Oral LD50 (RAT) = 5,900 mg/kg<br>Oral LD50 (RABBIT) = 3,620 mg/kg<br>Oral LD50 (RAT) = 6,500 mg/kg<br>Oral LD50 (RABBIT) = 4,450 mg/kg<br>Oral LD50 (RAT) = 7,500 mg/kg<br>Dermal LD50 (RABBIT) = 10,300 mg/kg<br>Dermal LD50 (RAT) = 6,000 mg/kg<br>Dermal LD50 (RABBIT) = 11,176 mg/kg<br>Dermal LD50 (RABBIT) = 8,500 mg/kg<br>Dermal LD50 (RABBIT) = 8,476 mg/kg | Blood, Central nervous system, Irritant, Kidney   |
| Alcohol derivative               | Oral LD50 (RABBIT) = 1,940 mg/kg<br>Oral LD50 (RAT) = 1,230 - 3,100 mg/kg<br>Oral LD50 (RAT) = 3,100 mg/kg<br>Dermal LD50 (RABBIT) = 2,000 mg/kg<br>Inhalation LC50 (RAT, 8 h) = 1,000 mg/l  | Allergen, Central nervous system, Corrosive, Irritant   |
| Substituted aminophenol          | None   | No Records  |
| Ethylene glycol                  | Oral LD50 (RAT) = 5.89 g/kg<br>Dermal LD50 (RABBIT) = 9,530 mg/kg  | Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic |

| Hazardous Component(s)           | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|----------------------------------|----------------|-----------------|--|
| Polyglycol diamine               | No             | No              | No                                       |
| Acid salt                        | No             | No              | No                                       |
| Glycerol                         | No             | No              | No                                       |
| Substituted aminophenol          | No             | No              | No                                       |
| Diethyleneglycol monoethyl ether | No             | No              | No                                       |
| Alcohol derivative               | No             | No              | No                                       |
| Substituted aminophenol          | No             | No              | No                                       |
| Ethylene glycol                  | No             | No              | No                                       |

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

|  |  |
|--|--|
| <b>Recommended method of disposal:</b> | Dispose of according to Federal, State and local governmental regulations.   |
| <b>Hazardous waste number:</b>         | It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24. |

### 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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

|                                  |  |
|----------------------------------|--|
| <b>Proper shipping name:</b>     | Amines, liquid, corrosive, n.o.s. (Polyglycol diamine) |
| <b>Hazard class or division:</b> | 8  |
| <b>Identification number:</b>    | UN 2735  |
| <b>Packing group:</b>            | II   |

#### International Air Transportation (ICAO/IATA)

|                                  |  |
|----------------------------------|--|
| <b>Proper shipping name:</b>     | Amines, liquid, corrosive, n.o.s. (Polyglycol diamine) |
| <b>Hazard class or division:</b> | 8  |
| <b>Identification number:</b>    | UN 2735  |
| <b>Packing group:</b>            | II   |

#### Water Transportation (IMO/IMDG)

|                                  |  |
|----------------------------------|--|
| <b>Proper shipping name:</b>     | AMINES, LIQUID, CORROSIVE, N.O.S. (Polyglycol diamine) |
| <b>Hazard class or division:</b> | 8  |
| <b>Identification number:</b>    | UN 2735  |
| <b>Packing group:</b>            | II   |

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

|   |  |
|---|--|
| <b>TSCA 8 (b) Inventory Status:</b>     | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.  |
| <b>TSCA 12 (b) Export Notification:</b> | None above reporting de minimis  |
| <b>CERCLA/SARA Section 302 EHS:</b>     | None above reporting de minimis  |
| <b>CERCLA/SARA Section 311/312:</b>     | Immediate Health, Delayed Health   |
| <b>CERCLA/SARA Section 313:</b>         | 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). Diethyleneglycol monoethyl ether (CAS# 111-90-0). |
| <b>California Proposition 65:</b>       | This product contains a chemical known in the State of California to cause cancer.   |

#### Canada Regulatory Information

|                             |   |
|-----------------------------|---|
| <b>CEPA DSL/NDL Status:</b> | Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details. |
|-----------------------------|---|

### 16. OTHER INFORMATION

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

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