

Revision Number: 002.1

Issue date: 07/23/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Product type:

EPK0151 PART A BULK Epoxy resin

Company address: Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067 **IDH number:** 893470 Item number: 83179_193035 Region: **United States** Contact information: Telephone: 860.571.5100 Emergency telephone: 860.571.5100 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

| | | EMERGENCY OVERVIEW |
|------------------------------|---------------------|---|
| | | HMIS: |
| Physical state: | Liquid | HEALTH: *2 |
| Color: Odor: | Milky, Whit None | e FLAMMABILITY: 1 PHYSICAL HAZARD: 0 |
| | None | Personal Protection: See MSDS Section 8 |
| WARNI | NG: MA | Y CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION. |
| | | Y BE HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR |
| | | IAI ED |
| | | |
| | | Y CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. |
| | 00 | MBUSTIBLE LIQUID AND VAPOR. |
| Relevant routes of | f exposure: | Skin, Inhalation, Eyes, Ingestion |
| Potential Health E | ffects | |
| Inhala | tion: | Allergic respiratory reaction. May be harmful if inhaled. Coughing. Shortness of breath. Mild respiratory tract irritation. |
| Skin c | ontact: | Allergic skin reaction. May be harmful if absorbed through skin. Itching. Redness. |
| Eye co | ontact: | Severe eye irritation. If left untreated, corneal damage can occur and injury is slow to heal. |
| Ingest | ion: | May be harmful if swallowed. |
| Existing condition exposure: | s aggravated by | Eye, skin and respiratory disorders. Skin allergies. Respiratory allergies. Asthma. |
| | | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFF 1910.1200). |

See Section 11 for additional toxicological information.

3. **COMPOSITION / INFORMATION ON INGREDIENTS**

| Hazardous components | CAS NUMBER | % |
|--|------------|----------|
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | 25068-38-6 | 60 - 100 |
| Butyl 2,3-epoxypropyl ether | 2426-08-6 | 10 - 30 |
| Silicon dioxide | 7631-86-9 | 1 - 5 |

4. FIRST AID MEASURES

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. 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: | DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. If symptoms develop and persist, get medical attention. |
| | |

5. FIRE FIGHTING MEASURES

| Flash point: | > 93.3 °C (> 199.94 °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. |
| Hazardous combustion products: | Oxides of carbon. Irritating organic fragments. Acids. Aldehydes. |

6. ACCIDENTAL RELEASE MEASURES

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

| Environmenta | I precautions: | Do not allow product to enter sewer or waterways. |
|---------------|----------------|--|
| Clean-up meth | nods: | 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: | 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. |

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 components | ACGIH TLV | OSHA PEL | AIHA WEEL | OTHER |
|--|--------------------------------------|---|-----------------------|-------------------------------------|
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | None | None | None | None |
| Butyl 2,3-epoxypropyl ether | 3 ppm TWA (SKIN) (Sensitizer.) | 50 ppm (270 mg/m3) TWA | None | None |
| Silicon dioxide | 6 mg/m3 TWA | 20 MPPCF TWA 0.8 mg/m3 TWA | None | 3 mg/m3 TWA Respirable fraction. |
| Engineering controls: | Provide adeque exposure limite | ate local exhaust ventil s. | ation to maintain w | orker exposure below |
| Respiratory protection: | | approved air-purifying r posure limits exists. | espirator if the pote | ntial to exceed |
| Eye/face protection: | Safety goggles | s or safety glasses with | side shields. | |
| Lychace protection. | , | , . | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Color: Odor: Odor threshold: pH: Vapor pressure: Boiling point/range: Melting point/ range: Specific gravity: Vapor density: Flash point: Flammable/Explosive limits - lower: Flammable/Explosive limits - upper: Autoignition temperature: Evaporation rate: Solubility in water: Partition coefficient (n-octanol/water): VOC content:

Liquid Milky, White None Not available Not applicable 2 mm hg (20 °C (68°F)) 140 °C (284°F) Not available 1.13 Not available > 93.3 °C (> 199.94 °F) Pensky Martens closed cup Not available Not available Not available Not available Not miscible or difficult to mix Not available < 0.05 % (value for resin and hardener together) (estimated)

10. STABILITY AND REACTIVITY

| Stability: | Stable | |
|-----------------------------------|--|--|
| Hazardous reactions: | Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers. | |
| Hazardous decomposition products: | None known | |
| Incompatible materials: | Strong acids. Strong bases. Strong oxidizing agents. Amines. Water. | |
| Conditions to avoid: | Avoid temperatures above 38°C (100°F). Excessive heat. Store away from incompatible materials. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. | |

11. TOXICOLOGICAL INFORMATION

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|---|----------------|-----------------|---|
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | No | No | No |
| Butyl 2,3-epoxypropyl ether | No | No | No |
| Silicon dioxide | No | No | No |

| | Health Effects/Target Organs |
|--|--|
| bichlorohydrin-4,4'-isopropylidene diphenol | |
| utyl 2,3-epoxypropyl ether | Irritant, Allergen, Central nervous system, Liver, Mutagen Nuisance dust |
| | |
| | 12. ECOLOGICAL INFORMATION |
| Ecological information: | Not available |
| | 13. DISPOSAL CONSIDERATIONS |
| In | formation 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 secti be different for bulk packaging. | ions are for non-bulk packaging only (unless otherwise specified). Shipping classification ma |
| U.S. Department of Transportation G | iround (49 CFR) |
| Proper shipping name: | Combustible liquid, n.o.s. (n-Butyl glycidyl ether) |
| Hazard class or division: Identification number: | Combustible Liquid NA 1993 |
| Packing group: | |
| Exceptions: | Not regulated, Up to 450 L max per inner/primary package when shipped as originally packaged only |
| International Air Transportation (ICA | <u>.0/IATA)</u> |
| Proper shipping name: | Not regulated |
| Hazard class or division: Identification number: | None None |
| Packing group: | None |
| Water Transportation (IMO/IMDG) | Net consultate d |
| Proper shipping name: Hazard class or division: | Not regulated None |
| Identification number: | None |
| Packing group: | None |
| | |
| | 15. REGULATORY INFORMATION |
| | 15. REGULATORY INFORMATION |
| | All components are listed or are exempt from listing on the Toxic Substances Control Act |
| ted States Regulatory Information | |
| ted States Regulatory Information TSCA 8 (b) Inventory Status: | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. None above reporting de minimus |
| ted States Regulatory Information TSCA 8 (b) Inventory Status: TSCA 12(b) Export Notification: | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. |
| ted States Regulatory Information TSCA 8 (b) Inventory Status: TSCA 12(b) Export Notification: CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. None above reporting de minimus None above reporting de minimus Immediate Health, Delayed Health, Fire None above reporting de minimus This product contains a chemical known in the State of California to cause cancer. This |
| ted States Regulatory Information TSCA 8 (b) Inventory Status: TSCA 12(b) Export Notification: CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA 313: California Proposition 65: | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. None above reporting de minimus Immediate Health, Delayed Health, Fire None above reporting de minimus This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or oth |
| ted States Regulatory Information TSCA 8 (b) Inventory Status: TSCA 12(b) Export Notification: CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA 313: | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. None above reporting de minimus None above reporting de minimus Immediate Health, Delayed Health, Fire None above reporting de minimus This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or oth |

16. OTHER INFORMATION

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

Prepared by: Gary Pierson, Sr. Regulatory Affairs Specialist

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.