**Revision Number:** 006.0

**Issue date:** 08/14/2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** **LOCTITE EA E-20NS B HARDENER known as DB EPOXY ADH E-20NS 400 ML HARD**

**IDH number:** 702006

**Product type:** Epoxy Hardener

**Item number:** 29336_209541

**Restriction of Use:** None identified

**Region:** United States

**Company address:**
Henkel Corporation
Henkel Way One
Rocky Hill, Connecticut 06067

**Contact information:**
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

DANGER**:** CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
MAY CAUSE AN ALLERGIC SKIN REACTION.
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
MAY CAUSE RESPIRATORY IRRITATION.
SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

| HAZARD CLASS | HAZARD CATEGORY |
|---|---|
| SKIN CORROSION | 1B |
| SERIOUS EYE DAMAGE | 1 |
| RESPIRATORY SENSITIZATION | 1 |
| SKIN SENSITIZATION | 1 |
| REPRODUCTIVE TOXICITY | 2 |
| SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE | 3 |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | 1 |

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection. In case of inadequate ventilation wear respiratory protection.

| | |
|---|---|
| **Response:** | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. |
| **Storage:** | Store in a well-ventilated place. Keep container tightly closed. Store locked up. |
| **Disposal:** | 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* |
|---|---|---|
| Talc | 14807-96-6 | 30 - 40 |
| 4,4'-Isopropylidenediphenol, polymer with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | 31326-29-1 | 20 - 30 |
| Quartz (SiO2) | 14808-60-7 | 10 - 20 |
| N-Aminoethylpiperazine | 140-31-8 | 5 - 10 |
| Nonylphenol | 25154-52-3 | 5 - 10 |
| Diethylenetriamine | 111-40-0 | 5 - 10 |
| 4,4'-Isopropylidenediphenol | 80-05-7 | 1 - 5 |
| Treated fumed silica | 67762-90-7 | 1 - 5 |
| 2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane | 3388-04-3 | 0.1 - 1 |

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

## 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. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. |
| **Eye contact:** | Rinse immediately with plenty of water, also under the eyelids, 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. Get medical attention. |
| **Symptoms:** | See Section 11. |

## 5. FIRE FIGHTING MEASURES

| | |
|---|---|
| **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. In case of fire, keep containers cool with water spray. |

| | |
|---|---|
| **Unusual fire or explosion hazards:** | Personnel in vicinity and downwind should be evacuated. Burning produces obnoxious and toxic fumes. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. |
| **Hazardous combustion products:** | Oxides of carbon. Oxides of nitrogen. Aldehydes. Ammonia. Formaldehyde. 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.**

| | |
|---|---|
| **Environmental precautions:** | Do not allow product to enter sewer or waterways. |
| **Clean-up methods:** | Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. |

## 7. HANDLING AND STORAGE

| | |
|---|---|
| **Handling:** | Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8. |
| **Storage:** | Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition. |

## 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 |
|---|---|---|---|---|
| Talc | 2 mg/m3 TWA Respirable fraction. | 0.1 mg/m3 TWA Respirable. 2.4 MPPCF TWA Respirable. 20 MPPCF TWA | None | 50 ppm |
| 4,4'-Isopropylidenediphenol, polymer with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | None | None | None | None |
| Quartz (SiO2) | 0.025 mg/m3 TWA Respirable fraction. | 2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust. | None | None |
| N-Aminoethylpiperazine | None | None | None | None |
| Nonylphenol | None | None | None | None |
| Diethylenetriamine | (SKIN) 1 ppm TWA | None | None | None |
| 4,4'-Isopropylidenediphenol | None | None | None | None |
| Treated fumed silica | 10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction. | 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. | None | None |
| 2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane | None | None | None | None |

**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. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

**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:** Viscous, Liquid
**Color:** Tan, Light, Green
**Odor:** Strong, Ammoniacal
**Odor threshold:** Not available.
**pH:** Not available.
**Vapor pressure:** Not available.
**Boiling point/range:** Not available.
**Melting point/ range:** Not available.
**Specific gravity:** 1.47
**Vapor density:** Not available.
**Flash point:** > 93 °C (> 199.4 °F) Setaflash Closed Cup

| | |
|---|---|
| **Flammable/Explosive limits - lower:** | Not available. |
| **Flammable/Explosive limits - upper:** | Not available. |
| **Autoignition temperature:** | Not available. |
| **Flammability**: | Not applicable |
| **Evaporation rate:** | Not available. |
| **Solubility in water:** | Slight |
| **Partition coefficient (n-octanol/water):** | Not available. |
| **VOC content:** | < 1.0 %; < 10 g/l (estimated value for resin and hardener mixed together) |
| **Viscosity:** | Not available. |
| **Decomposition temperature:** | Not available. |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability**: | Stable under normal conditions of storage and use. |
| **Hazardous reactions:** | None under normal processing. |
| **Hazardous decomposition products:** | Oxides of carbon. Oxides of nitrogen. Aldehydes. Ammonia. Formaldehyde. Nitric acid. Toxic fumes. Irritating vapors. |
| **Incompatible materials:** | Acids. Bases. Oxidizing agents. Peroxides. Reactive metals. Sodium hypochlorite. This product slowly corrodes copper, aluminum, zinc and galvanized surfaces. |
| **Reactivity:** | Not available. |
| **Conditions to avoid:** | Keep away from heat, ignition sources and 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

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

**Potential Health Effects/Symptoms**

**Inhalation:** Inhalation of vapors or mists of the product may be irritating to the respiratory system. Can cause severe irritation and burns to the respiratory tract. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.

**Skin contact:** Corrosive to skin. Causes skin burns. May cause allergic skin reaction.

**Eye contact:** Causes serious eye damage. Causes eye burns. Burns of the eye may cause blindness.

**Ingestion:** Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed. 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 |
|---|---|---|
| Talc | None | Irritant, Lung, Some evidence of carcinogenicity |
| 4,4'-Isopropylidenediphenol, polymer with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | None | No Target Organs |
| Quartz (SiO2) | None | Immune system, Lung, Some evidence of carcinogenicity |
| N-Aminoethylpiperazine | None | Irritant, Corrosive, Allergen |
| Nonylphenol | Oral LD50 (Rat) = 1,600 mg/kg<br>Dermal LD50 (Rabbit) = 2,140 mg/kg | Allergen, Corrosive, Irritant, Kidney |
| Diethylenetriamine | Oral LD50 (Rat) Approximate 1,140 mg/kg<br>Oral LD50 (Rat) = 1,080 mg/kg<br>Oral LD50 (Rat) = 2.33 g/kg | Allergen, Irritant, Eyes |
| 4,4'-Isopropylidenediphenol | Oral LD50 (Rat) = 4,100 mg/kg<br>Oral LD50 (Rat) = 3,300 mg/kg<br>Oral LD50 (Mouse) = 5,280 mg/kg<br>Oral LD50 (Mouse) = 2,500 mg/kg<br>Oral LD50 (Mouse) = 4,100 mg/kg | Allergen, Blood, Irritant, Kidney, Reproductive, Spleen |
| Treated fumed silica | None | Irritant |
| 2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane | None | Irritant, Allergen |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|---|---|---|---|
| Talc | No | Group 2B | No |
| 4,4'-Isopropylidenediphenol, polymer with 1-chloro-2,3-epoxypropane, reaction products with diethylenetriamine | No | No | No |
| Quartz (SiO2) | Known To Be Human Carcinogen. | Group 1 | Yes |
| N-Aminoethylpiperazine | No | No | No |
| Nonylphenol | No | No | No |
| Diethylenetriamine | No | No | No |
| 4,4'-Isopropylidenediphenol | No | No | No |
| Treated fumed silica | No | No | No |
| 2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane | No | No | No |

## 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:** 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)**

| | |
|---|---|
| **Proper shipping name:** | Corrosive liquids, n.o.s. (Diethylenetriamine, Nonylphenol) |
| **Hazard class or division:** | 8 |
| **Identification number:** | UN 1760 |
| **Packing group:** | II |

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

| | |
|---|---|
| **Proper shipping name:** | Corrosive liquid, n.o.s. (Diethylenetriamine, Nonylphenol) |
| **Hazard class or division:** | 8 |
| **Identification number:** | UN 1760 |
| **Packing group:** | II |

**Water Transportation (IMO/IMDG)**

| | |
|---|---|
| **Proper shipping name:** | CORROSIVE LIQUID, N.O.S. (Diethylenetriamine, Nonylphenol) |
| **Hazard class or division:** | 8 |
| **Identification number:** | UN 1760 |
| **Packing group:** | II |
| **Marine pollutant:** | Nonylphenol |

## 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:** Alkyl phenol (CAS# 25154-52-3).

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.

**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health

**CERCLA/SARA Section 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). Nonylphenol (CAS# 25154-52-3). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).

**California Proposition 65:** 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 other reproductive harm.

**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 safety data sheet contains changes from the previous version in sections:** 2,3

**Prepared by:** Rebecca Coons, Regulatory Affairs Specialist

**Issue date:** 08/14/2017

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