



Revision Number: 005.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE EA 9460 B HARDENER</b> <b>known as Hysol 9460 HARD</b>	<b>IDH number:</b>	702148
<b>Product type:</b>	Epoxy Hardener	<b>Item number:</b>	83128_AB9281
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	<b>Contact information:</b>	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.  
SUSPECTED OF CAUSING GENETIC DEFECTS.  
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.  
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

**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 dust or fumes. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face 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 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*
Quartz (SiO <sub>2</sub> ), <1% respirable	14808-60-7	30 - 40
Benzyl alcohol	100-51-6	5 - 10
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	5 - 10
N,N'-Bis(3-aminopropyl)piperazine	7209-38-3	5 - 10
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Phenol	108-95-2	1 - 5
N-Aminoethylpiperazine	140-31-8	1 - 5
Microcrystalline Silica	1317-95-9	0.1 - 1
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	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

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). 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. 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>	Water spray (fog), 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>	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. Oxides of nitrogen. 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:**

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:**

Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame.

## 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
Quartz (SiO <sub>2</sub> ), <1% respirable	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m <sup>3</sup> TWA Respirable. 0.05 mg/m <sup>3</sup> TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m <sup>3</sup> OSHA_ACT (Respirable dust.) 0.05 mg/m <sup>3</sup> PEL Respirable dust.	None	None
Benzyl alcohol	None	None	10 ppm (44.20 mg/m <sup>3</sup> ) TWA	None
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	None	None	None	None
N,N'-Bis(3-aminopropyl)piperazine	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m <sup>3</sup> TWA Inhalable dust. 3 mg/m <sup>3</sup> TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m <sup>3</sup> ) PEL (SKIN)	None	None
N-Aminoethylpiperazine	None	None	None	None
Microcrystalline Silica	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	0.05 mg/m <sup>3</sup> TWA (Respirable dust.) 0.025 mg/m <sup>3</sup> OSHA_ACT (Respirable dust.) (Respirable dust.) 0.05 mg/m <sup>3</sup> PEL (as quartz) Respirable dust.	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None

**Engineering controls:**

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established 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.

**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:**

Paste

**Color:**

Dark, Blue, Black

**Odor:**

Slight, Ammoniacal

**Odor threshold:**

Not available.

**pH:**

Not applicable

**Vapor pressure:**

Not available.

**Boiling point/range:**

> 149 °C (> 300.2 °F)

<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.31
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	> 93 °C (> 199.4 °F) ; Estimated
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 1 %; < 10 g/l (value for resin and hardener together) (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. Irritating vapors.
<b>Incompatible materials:</b>	Strong acids. Strong oxidizing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	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

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

**Inhalation:** Mists, vapors or liquid may cause severe irritation or burns. 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:** Causes skin burns. May cause allergic skin reaction.

**Eye contact:** Causes serious eye damage.

**Ingestion:** May cause burns of mouth and throat if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Quartz (SiO <sub>2</sub> ), <1% respirable	None	Immune system, Lung, Some evidence of carcinogenicity
Benzyl alcohol	Oral LD50 (Rabbit) = 1,940 mg/kg Oral LD50 (Rat) = 1,230 - 3,100 mg/kg Oral LD50 (Mouse) = 1,580 mg/kg Oral LD50 (Rat) = 3,100 mg/kg Dermal LD50 (Rabbit) = 2,000 mg/kg	Allergen, Central nervous system, Corrosive, Irritant
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	None	Irritant, Allergen, Corrosive, Lung
N,N'-Bis(3-aminopropyl)piperazine	None	No Records
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
Phenol	Oral LD50 (Mouse) = 270 mg/kg Oral LD50 (Rat) = 317 mg/kg Oral LD50 (Rat) = 530 mg/kg Dermal LD50 (Rat) = 669 mg/kg Dermal LD50 (Rabbit) = 850 mg/kg	Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular
N-Aminoethylpiperazine	None	Irritant, Corrosive, Allergen
Microcrystalline Silica	None	Lung, Some evidence of carcinogenicity
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Quartz (SiO <sub>2</sub> ), <1% respirable	Known To Be Human Carcinogen.	Group 1	Yes
Benzyl alcohol	No	No	No
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	No	No	No
N,N'-Bis(3-aminopropyl)piperazine	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Phenol	No	No	No
N-Aminoethylpiperazine	No	No	No
Microcrystalline Silica	Known To Be Human Carcinogen.	Group 1	Yes
Epichlorohydrin-4,4'-isopropylidene diphenol resin	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>	Follow all local, state, federal and provincial regulations for disposal.
<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, solid, corrosive, n.o.s. (Isophoronediamine, Bis(aminopropyl)piperazine)
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 3259
<b>Packing group:</b>	III

### International Air Transportation (ICAO/IATA)

<b>Proper shipping name:</b>	Amines, solid, corrosive, n.o.s. (Isophoronediamine, Bis(aminopropyl)piperazine)
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 3259
<b>Packing group:</b>	III

### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	AMINES, SOLID, CORROSIVE, N.O.S. (Isophoronediamine, Bis(aminopropyl)piperazine)
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 3259
<b>Packing group:</b>	III

## 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>	Phenol (CAS# 108-95-2).
<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). Phenol (CAS# 108-95-2).
<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>	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 10/15/2018

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