Revision Number: 004.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Hysol 9460 Hardener**
Product type: Epoxy Hardener
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 475441
Item number: 83133
Region: United States
Contact information:
Telephone: (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.

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

PICTOGRAM(S)

Precautionary Statements

Prevention: Do not breathe dust or fumes. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, 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 person to fresh air and keep comfortable for breathing.
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.

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 (SiO2)	14808-60-7	30 - 60
Benzyl alcohol	100-51-6	5 - 10
Cycloaliphatic amine	Proprietary	5 - 10
Substituted piperazine	Proprietary	5 - 10
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Phenol	108-95-2	1 - 5
Substituted Piperazine	Proprietary	1 - 5
Microcrystalline Silica	1317-95-9	0.1 - 1
Epoxy resin	Proprietary	0.1 - 1

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

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Skin contact: 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.

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. 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.

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. 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.

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
Quartz (SiO2)	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	None
Benzyl alcohol	None	None	10 ppm (44.20 mg/m3) TWA	None
Cycloaliphatic amine	None	None	None	None
Substituted piperazine	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m3) PEL (SKIN)	None	None
Substituted Piperazine	None	None	None	None
Microcrystalline Silica	0.025 mg/m3 TWA Respirable fraction.	None	None	None
Epoxy 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)
Melting point/ range: Not available.
Specific gravity: 1.31
Vapor density: Not available.

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

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: Mists, vapors or liquid may cause severe irritation or burns.
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 (SiO2)	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 (RAT) = 3,100 mg/kg Dermal LD50 (RABBIT) = 2,000 mg/kg Inhalation LC50 (RAT, 8 h) = 1,000 mg/l	Allergen, Central nervous system, Corrosive, Irritant
Cycloaliphatic amine	None	Irritant, Allergen, Corrosive, Lung
Substituted piperazine	None	No Records
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
Phenol	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
Substituted Piperazine	None	Irritant, Corrosive, Allergen
Microcrystalline Silica	None	Lung, Some evidence of carcinogenicity
Epoxy resin	None	Allergen, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	No
Benzyl alcohol	No	No	No
Cycloaliphatic amine	No	No	No
Substituted piperazine	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Phenol	No	No	No
Substituted Piperazine	No	No	No
Microcrystalline Silica	Known To Be Human Carcinogen.	Group 1	No
Epoxy resin	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: Amines, solid, corrosive, n.o.s. (Isophoronediamine, Bis(aminopropyl)piperazine)
Hazard class or division: 8
Identification number: UN 3259
Packing group: III

International Air Transportation (ICAO/IATA)

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

Water Transportation (IMO/IMDG)

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

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: None above reporting de minimis

CERCLA/SARA Section 302 EHS: Phenol (CAS# 108-95-2).
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). Phenol (CAS# 108-95-2).

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

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: New Safety Data Sheet format.

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