



Revision Number: 003.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Hysol 9460 Hardener	IDH number:	475441
Product type:	Epoxy Hardener	Item number:	83133
		Region:	United States
Company address:		Contact information:	
Henkel Corporation		Telephone: 860.571.5100	
One Henkel Way		Emergency telephone: 860.571.5100	
Rocky Hill, Connecticut 06067		Internet: www.henkelna.com	

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Paste	HEALTH:	*2
Color:	Dark blue, Black	FLAMMABILITY:	1
Odor:	Slight, Ammoniacal	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF SWALLOWED.

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

Potential Health Effects

Inhalation:	Mild respiratory tract irritation. May cause irritation to nose and throat.
Skin contact:	Allergic skin reaction. Moderate skin irritation. Itching. Redness.
Eye contact:	Moderate eye irritation. Redness.
Ingestion:	May be harmful if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Skin allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Quartz (SiO2)	14808-60-7	30 - 60
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	68683-29-4	10 - 30
Benzyl alcohol	100-51-6	5 - 10
Formaldehyde, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and phenol	25265-17-2	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
Tripoli	1317-95-9	0.1 - 1

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). 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 °C (> 199.4 °F) ; Estimated
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
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 organic fragments.

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. 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
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated	None	None	None	None
Benzyl alcohol	None	None	10 ppm (44 mg/m ³) TWA	None
Formaldehyde, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and phenol	None	None	None	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 ³ TWA Inhalable dust. 3 mg/m ³ TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m ³ TWA	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m ³) TWA (SKIN)	None	None
N-Aminoethylpiperazine	None	None	None	None
Tripoli	0.025 mg/m ³ TWA Respirable fraction.	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.

Skin protection:

Chemical resistant, impermeable gloves.

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)

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	None
Incompatible materials:	Strong acids. Strong oxidizing agents.
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

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Quartz (SiO ₂)	Known carcinogen.	Group 1	No
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	No	No	No
Benzyl alcohol	No	No	No
Formaldehyde, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and phenol	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
Tripoli	Known carcinogen.	Group 1	No

Hazardous components	Health Effects/Target Organs
Quartz (SiO ₂)	Immune system, Lung, Some evidence of carcinogenicity
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperaziny)ethyl]amino]butyl-terminated	No Target Organs
Benzyl alcohol	Allergen, Central nervous system, Corrosive, Irritant
Formaldehyde, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and phenol	No Records
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	Irritant, Allergen, Corrosive, Lung
N,N'-Bis(3-aminopropyl)piperazine	No Records
Silica, amorphous, fumed, crystal-free	Nuisance dust
Phenol	Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular
N-Aminoethylpiperazine	Irritant, Corrosive, Allergen
Tripoli	Lung, Some evidence of carcinogenicity

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: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

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 minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus
California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.2.A, D.2.B

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

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