

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point: > 93.33 °C (> 199.99 °F) Setflash Closed Cup

Autoflammation 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. Aldehydes. Acids. 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: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed container until ready for disposal. Flush with water.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed.

Storage: 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
Phenol polymer with formaldehyde, glycidyl ether	None	None	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
2-Propenoic acid, 2-methyl-, methyl ester, polymeric	None	None	None	None
Amorphous fumed silica	None	None	None	None

Engineering controls: Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: No personal respiratory protective equipment normally required.

Eye/face protection: Safety goggles or safety glasses with side shields.
 Skin protection: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
 Color: Pale yellow
 Odor: Faint, Epoxy
 Odor threshold: Not available
 pH: Not applicable
 Vapor pressure: Not determined
 Boiling point/range: > 149 °C (> 300.2 °F)
 Melting point/ range: Not available
 Specific gravity: Not available
 Vapor density: Not available
 Flash point: > 93.33 °C (> 199.99 °F) Setaflash Closed Cup
 Flammable/Explosive limits - lower: Not available
 Flammable/Explosive limits - upper: Not available
 Autoignition temperature: Not available
 Evaporation rate: Not available
 Solubility in water: Not miscible or difficult to mix
 Partition coefficient (n-octanol/water): Not available
 VOC content: < 1 %, < 10 g/l Estimated

10. STABILITY AND REACTIVITY

Stability: Stable
 Hazardous reactions: Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.
 Hazardous decomposition products: None reasonably foreseeable
 Incompatible materials: Oxidizing agents, Strong acids and strong bases, Amines.
 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)
Phenol polymer with formaldehyde, glycidyl ether	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
2-Propenoic acid, 2-methyl-, methyl ester, polymers	No	No	No
Amorphous fumed silica	No	No	No

Hazardous components	Health Effects/Target Organs
Phenol polymer with formaldehyde, glycidyl ether	Irritant, Allergen
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
2-Propenoic acid, 2-methyl-, methyl ester, polymers	No Target Organs
Amorphous fumed silica	No Target Organs

12. ECOLOGICAL INFORMATION

Ecological Information: Not known.

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
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. 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.

WHMIS hazard class: 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

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.

Material Safety Data Sheet



Revision Number: 002.1

Issue date: 02/20/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DB EPOXY ADH E-120HP 50 ML. HAR
Product type: Epoxy Hardener
Company address: Henkel Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

IDH number: 702022
Item number: 29353_209548
Region: United States
Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

		<u>HMS:</u>	
Physical state:	Liquid	HEALTH:	*3
Color:	Amber	FLAMMABILITY:	1
Odor:	Slight	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8

DANGER: CAUSES EYE AND SKIN BURNS.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

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

Potential Health Effects

Inhalation: Moderate respiratory tract irritation.
Skin contact: Causes skin burns. May cause allergic skin reaction. Severe skin irritation. May be harmful if absorbed through skin.
Eye contact: Causes eye burns. Severe eye irritation. May cause permanent visual impairment.
Ingestion: If ingested, severe burns of the mouth and throat may occur, as well as perforation of the esophagus and the stomach. May be harmful if swallowed.

Existing conditions aggravated by exposure: Pre-existing skin, eye and respiratory 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	%
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	68410-23-1	60 - 100
3,6,9-Triazaundecamethylenediamine	112-57-2	10 - 30
Triethylenetetramine	112-24-3	5 - 10

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:	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). Wash clothing before reuse. 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. Never give anything by mouth to an unconscious person. 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:	Dry chemical. Carbon dioxide. Alcohol foam.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	Personnel in vicinity and downwind should be evacuated. Burning produces obnoxious and toxic fumes.
Hazardous combustion products:	Ammonia. Oxides of carbon. Oxides of nitrogen. Nitric acid.

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:	Evacuate personnel to safe areas. Scrape up spilled material and place in a closed container for disposal.

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. Do not taste or swallow. Keep container closed.
Storage:	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Do not store near acids. Do not store in reactive metal containers.

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
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	None	None	None	None
3,6,9-Triazaundecamethylenediamine	None	None	1 ppm (5 mg/m3) TWA Aerosol (SKIN) Aerosol (Skin sensitizer)	None
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None

Engineering controls: Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields.

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:	Liquid
Color:	Amber
Odor:	Slight
Odor threshold:	Not available
pH:	Not available
Vapor pressure:	Not available
Boiling point/range:	Not available
Melting point/ range:	Not available
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:	Partially soluble
Partition coefficient (n-octanol/water):	Not available
VOC content:	< 1.0 %; < 10 g/l Estimated

10. STABILITY AND REACTIVITY

Stability	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Ammonia. Oxides of carbon. Oxides of nitrogen. Nitric acid.
Incompatible materials:	Strong oxidizing agents. Organic acids. Mineral acids.
Conditions to avoid:	Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	No	No	No
3,6,9-Triazaundecamethylenediamine	No	No	No
Triethylenetetramine	No	No	No

Hazardous components	Health Effects/Target Organs
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	Corrosive, Irritant
3,6,9-Triazaundecamethylenediamine	Irritant, Mutagen, Allergen
Triethylenetetramine	Allergen, Corrosive, Developmental, Irritant, Mutagen

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

The shipping classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging

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

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Tetraethylene pentamine, Triethylenetetramine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Tetraethylene pentamine, Triethylenetetramine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylene pentamine, Triethylenetetramine)
Hazard class or division: 8
Identification number: UN 2735
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 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: No California Proposition 65 listed chemicals are known to be present

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, E

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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