



Revision Number: 002.2

Issue date: 07/14/2010

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** DB EPOXY ADH E-120HP 50 ML. HAR  
**Product type:** Epoxy Hardener  
**IDH number:** 702022  
**Item number:** 29353\_209548  
**Region:** United States  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067  
**Contact information:**  
 Telephone: 860.571.5100  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

<b>Physical state:</b>	Liquid	<b>HEALTH:</b>	*3
<b>Color:</b>	Amber	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Slight	<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	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:** Eye, skin and respiratory disorders.

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
Tetraethylene pentamine	112-57-2	10 - 30
Triethylenetetramine	112-24-3	5 - 10

## 4. FIRST AID MEASURES

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

<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention. Thoroughly clean shoes before reuse.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Rinse the mouth. Drink 1-2 glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

## 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 93 °C (> 199.4 °F) ; Estimated
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Extinguishing media:</b>	Dry chemical. Carbon dioxide. Alcohol foam.
<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>	Personnel in vicinity and downwind should be evacuated. Burning produces obnoxious and toxic fumes. 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.
<b>Hazardous combustion products:</b>	Ammonia. Oxides of carbon. Oxides of nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Remove all sources of ignition. Ensure adequate ventilation. Wear appropriate personal protective equipment. 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

<b>Handling:</b>	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Use only with adequate ventilation. Keep container closed.
<b>Storage:</b>	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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	None	None	None	None
Tetraethylene pentamine	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

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

## 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>	Ammonia. Oxides of carbon. Oxides of nitrogen.
<b>Incompatible materials:</b>	Strong oxidizing agents. Acids.
<b>Conditions to avoid:</b>	Keep away from heat, ignition sources and incompatible materials. Exposure to water vapour. Exposure to sunlight.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	No	No	No
Tetraethylene pentamine	No	No	No
Triethylenetetramine	No	No	No

Hazardous components	Health Effects/Target Organs
Dimer fatty acid C18 unsaturated polyethylenepolyamine condensate	Corrosive, Irritant
Tetraethylene pentamine	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:** Dispose of according to Federal, State and local governmental regulations.

**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, dimer fatty acid(C18)poly amido amine resin)  
**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, dimer fatty acid(C18)poly amido amine resin)  
**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, dimer fatty acid(C18)poly amido amine resin)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** III  
**Marine pollutant:** dimer fatty acid(C18)poly amido amine resin

## 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: 2, 4, 5, 6, 7, 10, 14

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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# Material Safety Data Sheet



Revision Number: 001.0

Issue date: 08/18/2011

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	DB EPOXY ADH E-120HP 50 ML RES	IDH number:	702021
Product type:	Epoxy resin	Item number:	29353_209547
		Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: 860.571.5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	1-877-671-4008 (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

Physical state:	Liquid	HEALTH:	2
Color:	Pale yellow, to. Off white	FLAMMABILITY:	1
Odor:	Faint, Epoxy	PHYSICAL HAZARD:	1
		Personal Protection:	See MSDS Section 8

**WARNING:** MAY CAUSE ALLERGIC SKIN REACTION.  
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

### Potential Health Effects

Inhalation:	May cause respiratory tract irritation.
Skin contact:	May cause allergic skin reaction. May cause skin irritation.
Eye contact:	This product may cause irritation to the eyes.
Ingestion:	Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances. Vomiting.

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

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	%
Epoxy resin	Proprietary	30 - 60
Epoxy resin	Proprietary	30 - 60
Acrylic polymers	Unknown	10 - 30
Filler	Proprietary	1 - 5

## 4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
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Product name: DB EPOXY ADH E-120HP 50 ML RES

<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, 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. If symptoms develop and persist, 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.

## 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	98.11 °C (205°F) Setflash Closed Cup
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<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>	Personnel in vicinity and downwind should be evacuated. Burning produces obnoxious and toxic fumes. 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.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Aldehydes. Formaldehyde. Acids. Acrylic monomers. Oxides of silicon. 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.	
<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	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

<b>Handling:</b>	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.
<b>Storage:</b>	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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epoxy resin	None	None	None	None
Epoxy resin	None	None	None	None
Acrylic polymers	None	None	None	None
Filler	None	None	None	None

Engineering controls: Use local exhaust ventilation if the potential for airborne exposure exists.

Respiratory protection: Use a NIOSH approved respirator if ventilation is inadequate.

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: Pale yellow, to, Off white  
Odor: Faint, Epoxy  
Odor threshold: Not available  
pH: Not available  
Vapor pressure: Not available  
Boiling point/range: Not available  
Melting point/ range: Not available  
Specific gravity: 1.10  
Vapor density: Not available  
Flash point: 96.11 °C (205°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 available  
Partition coefficient (n-octanol/water): Not available  
VOC content: 0.0 % California SCAQMD Method 316B

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: Polymerization may occur at elevated temperature or in the presence of incompatible materials.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Aldehydes. Formaldehyde. Acids. Acrylic monomers. Oxides of silicon. Toxic fumes. Irritating vapors.

Incompatible materials: Acids. Bases. Oxidizing agents. Amines.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials. Note: Heating the epoxy resin in this product above 148.9 °C (300 °F) in the presence of air may cause slow oxidative decomposition. Above 260 °C (500 °F) polymerization of the epoxy resin may occur. Aliphatic polyamines can produce exothermic reactions with epoxy resins which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do not breathe fumes.



**11. TOXICOLOGICAL INFORMATION**

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epoxy resin	No	No	No
Epoxy resin	No	No	No
Acrylic polymers	No	No	No
Filler	No	No	No

Hazardous components	Health Effects/Target Organs
Epoxy resin	Irritant, Allergen
Epoxy resin	Allergen, Irritant
Acrylic polymers	No Data
Filler	No Target Organs

**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:	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

**Water Transportation (IMO/IMDG)**

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	epoxy resin

**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/NDL 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: First issue.

Prepared by: Rena Petrides, 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.