



Revision Number: 004.0

Issue date: 02/03/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Hysol E-05CL Epoxy ADH - Ultra	IDH number:	701962
Product type:	Epoxy Hardener	Item number:	29299_209527
		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	1-877-671-4608 (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

Physical state:	Liquid	HEALTH:	*3
Color:	Clear	FLAMMABILITY:	2
Odor:	Mercaptan	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8
DANGER:	COMBUSTIBLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR INHALED.		

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

Potential Health Effects

Inhalation:	Can cause severe irritation and burns to the respiratory tract. Harmful if inhaled.
Skin contact:	Causes skin burns. May cause allergic skin reaction. Harmful if absorbed through skin.
Eye contact:	Causes eye burns. Burns of the eye may cause blindness.
Ingestion:	May cause burns of mouth and throat if swallowed. 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	%
Polymercaptan hardener	Proprietary	60 - 100
Tertiary amine	Proprietary	5 - 10
Aliphatic amine	Proprietary	1 - 5

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:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. 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 immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	78 °C (172.4 °F) Pensky Martens closed cup
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.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Hydrogen sulfide. 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.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. 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:	Keep away from heat, spark and flame. 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.
Storage:	Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. 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
Polymercaptan hardener	None	None	None	None
Tertiary amine	None	None	None	None
Aliphatic amine	6 ppm STEL 3 ppm TWA	3 ppm (6 mg/m3) TWA	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:	Liquid
Color:	Clear
Odor:	Mercaptan
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.12
Vapor density:	Not available.
Flash point:	78 °C (172.4 °F) Pinsky Martens 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:	< 1 %; < 10 g/l Estimated

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. Oxides of sulfur. Hydrogen sulfide. Toxic fumes. Irritating vapors.
- Incompatible materials:** Acids. Oxidizing agents. Halogenated compounds.
- Conditions to avoid:** Keep away from heat, ignition sources and incompatible materials. Avoid moisture.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polymercaptan hardener	No	No	No
Tertiary amine	No	No	No
Aliphatic amine	No	No	No

Hazardous components	Health Effects/Target Organs
Polymercaptan hardener	No Records
Tertiary amine	Irritant, Corrosive, Allergen, Respiratory
Aliphatic amine	Irritant, Kidney, Liver, Corrosive, Respiratory, Developmental

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

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

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Aliphatic amines)
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. (Aliphatic amines)
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. (Aliphatic amines)
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: 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: B.3, D.2.A, D.2.B, E

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 1,2,4,5,6,7,8,10,13,15

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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Revision Number: 004.0

Issue date: 07/16/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Hysol E-05CL Epoxy ADH - Ultra	IDH number: 701961
Product type: Epoxy resin	Item number: 29299_209526
	Region: United States
Company address: Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	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

Physical state: Liquid	HEALTH: *2
Color: Clear, yellow	FLAMMABILITY: 1
Odor: Mild	PHYSICAL HAZARD: 0
	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:	Not expected under normal conditions of use.

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	60 - 100
Epoxy resin	Proprietary	10 - 30
Neopentyl glycol diglycidyl ether	17557-23-2	5 - 10

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.

Skin contact:	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.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If symptoms develop and persist, 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:	> 93.3 °C (> 199.94 °F) Pensky Martens closed cup
Autoignition temperature:	Not available.
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Extinguishing media:	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. Phenolics. Aldehydes. 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:	Remove all sources of ignition. 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. Protect from direct sunlight.

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
Neopentyl glycol diglycidyl ether	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: Clear, yellow

Odor: Mild

Odor threshold: Not available.

pH: Not available.

Vapor pressure: Not available.

Boiling point/range: > 149 °C (> 300.2 °F) (1,013 hPa)

Melting point/ range: Not available.

Specific gravity: 1.11

Vapor density: Not available.

Flash point: > 93.3 °C (> 199.94 °F) Pinsky Martens 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: Negligible

Partition coefficient (n-octanol/water): Not available.

VOC content: < 1 %; < 10 g/l Estimated

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

Hazardous decomposition products: Oxides of carbon. Phenolics. Aldehydes. Irritating vapors.

Incompatible materials: Strong oxidizing agents. Strong acids. Strong bases. Amines. Mercaptans. Ammonia. Alcohols. Acids.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epoxy resin	No	No	No
Epoxy resin	No	No	No
Neopentyl glycol diglycidyl ether	No	No	No

Hazardous components	Health Effects/Target Organs
Epoxy resin	Irritant, Allergen
Epoxy resin	Allergen, Irritant
Neopentyl glycol diglycidyl ether	Allergen, Blood, Bone Marrow, Immune system, Irritant, Reproductive

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

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. (Bisphenol-A Epichlorhydrin 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. (Bisphenol-A Epichlorhydrin resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Bisphenol-A Epichlorhydrin 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 minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimis

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.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 1,4,5,6,7,8,10

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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