



Revision Number: 005.0

Issue date: 12/19/2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	HARDENER	IDH number:	343618
Product type:	Epoxy Hardener	Item number:	AB1052
Restriction of Use:	None identified	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

DANGER: CAUSES SKIN IRRITATION.
 MAY CAUSE AN ALLERGIC SKIN REACTION.
 CAUSES SERIOUS EYE DAMAGE.
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
 MAY CAUSE RESPIRATORY IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)



Precautionary Statements

Prevention: Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

Response: IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.

Storage: Store in a well-ventilated place. Keep container tightly closed. 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*
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	68082-29-1	40 - 50
Talc	14807-96-6	40 - 50
Triethylenetetramine	112-24-3	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Diethylenetriamine	111-40-0	1 - 5
1-Methylimidazole	616-47-7	1 - 5
Quartz (SiO ₂)	14808-60-7	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

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:	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.
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.
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 in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

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
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	None	None	None	None
Talc	2 mg/m3 TWA Respirable fraction.	0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust. 2.4 MPPCF TWA Respirable. 20 MPPCF TWA	None	50 ppm
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	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
Diethylenetriamine	(SKIN) 1 ppm TWA	None	None	None
1-Methylimidazole	None	None	None	None
Quartz (SiO ₂)	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.05 mg/m3 PEL	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. 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: Viscous, Liquid
Color: Green, Gray, Brown
Odor: Strong, Ammoniacal
Odor threshold: Not available.
pH: Not applicable
Vapor pressure: 1 mm hg (20 °C (68°F))
Boiling point/range: 206.6 °C (403.9 °F)
Melting point/ range: Not available.
Specific gravity: 1.35

Vapor density:	3.5
Flash point:	102 °C (215.6 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 0.05 % (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.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation: Mists, vapors or liquid may cause severe irritation or burns. May cause respiratory tract irritation.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes serious eye damage.
Ingestion: May cause gastrointestinal tract irritation if swallowed. Nausea. Vomiting.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	None	No Records
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
Triethylenetetramine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
Diethylenetriamine	Oral LD50 (Rat) Approximate 1,140 mg/kg Oral LD50 (Rat) = 1,080 mg/kg Oral LD50 (Rat) = 2.33 g/kg	Allergen, Irritant, Eyes
1-Methylimidazole	None	Allergen, Developmental, Gastrointestinal, Liver, Reproductive
Quartz (SiO2)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	No	No	No
Talc	No	Group 2B	No
Triethylenetetramine	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Diethylenetriamine	No	No	No
1-Methylimidazole	No	No	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	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. D009. Mercury.

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, liquid, corrosive, n.o.s. (Triethylenetetramine, Diethylenetriamine)
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. (Triethylenetetramine, Diethylenetriamine)
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. (Triethylenetetramine, Diethylenetriamine, C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	III
Marine pollutant:	C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer

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 Section 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/NDL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2, 3, 14,

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