Material Safety Data Sheet

Revision Number: 007.1 **Issue date:** 12/30/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Triethylenetetramine (kit)**
Product type: Epoxy Hardener

IDH number: 782063
Item number: 37316_1103301
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

HMIS:

Physical state:	Liquid	**HEALTH:**	3
Color:	Amber	**FLAMMABILITY:**	1
Odor:	Fishy	**PHYSICAL HAZARD:**	0
		Personal Protection:	Refer to MSDS

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

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

Potential Health Effects

Inhalation: Severe respiratory tract irritation. Respiratory tract burns.

Skin contact: Severe skin irritation. Possible burns to skin. Pain and discomfort. Harmful if absorbed through skin. May cause allergic skin reaction. Itching. Rash.

Eye contact: Causes eye burns. Burns of the eye may cause blindness. Blurred vision. Excess tearing. Pain and discomfort. Tissue damage.

Ingestion: Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

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	%
Triethylenetetramine	112-24-3	60 - 100

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. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. 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: 115 °C (239°F) 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: Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Decomposition and combustion products may be toxic.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Ammonia. 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. Wash spillage site thoroughly with soap and water or detergent solution.

7. HANDLING AND STORAGE

Handling: Do not taste or swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Wash thoroughly after handling.

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
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None

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

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: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Amber
Odor:	Fishy
Odor threshold:	Not available
pH:	Not available
Vapor pressure:	Not available
Boiling point/range:	277 °C (530.6 °F)
Melting point/ range:	Not available
Specific gravity:	0.98
Vapor density:	> 1 (Air = 1)
Flash point:	115 °C (239°F) 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:	Soluble
Partition coefficient (n-octanol/water):	Not available
VOC content:	< 1.0 %; < 10 g/l (value for resin and hardener together) (estimated)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: Nitric acid. Ammonia. Nitrosamines.

Incompatible materials: Strong mineral acids. Acids. Oxidizing agents. Alkalis. Calcium - and Sodium hypochlorite. Copper. Aluminum. Nitrites. Nitrous acid and other nitrosating agents.

Conditions to avoid: Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Triethylenetetramine	No	No	No

Hazardous components	Health Effects/Target Organs
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

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

Proper shipping name: Triethylenetetramine
Hazard class or division: 8
Identification number: UN 2259
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Triethylenetetramine
Hazard class or division: 8
Identification number: UN 2259
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: TRIETHYLENETETRAMINE
Hazard class or division: 8
Identification number: UN 2259
Packing group: II

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/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.1.B, 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, Manager, Regulatory Affairs

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.