

4917 Dawn Avenue
East Lansing, MI 48823-5691

8am to 4:30pm Phone: (517) 351-5900
24-Hour Health/Environmental Emergency Phone: 1-888-354-3323

Effective Date: 2/16/01

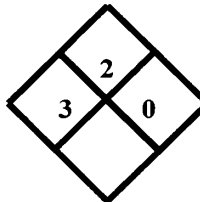
Material Safety Data Sheet

MSDS No: 5845

1. PRODUCT IDENTIFICATION

Trade Name: Hardener HY 994

Chemical Family: Amine



NFPA RATING

Health	3
Flammability	2
Reactivity	0
Protective Equipment	

HMS RATING

Synonyms:

H 994 HARDENER

Intended Use or Product Type: Epoxy Adhesive Hardener.

2. COMPOSITION / INFORMATION ON INGREDIENTS

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	112-24-3 Common Name:	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)- Triethylenetetramine	NE	NE	NE	NE	NE	NR	NR	NR
*	68410-23-1 Common Name:	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines Polyamide Resin	NE	NE	NE	NE	NE	NR	NR	NR
	109-55-7 Common Name:	1,3- Propanediamine, N,N- dimethyl DMPA	NE	NE	NE	NE	NE	NR	NR	NR

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Combustible. Corrosive - Causes skin and eye burns. May cause allergic skin and respiratory reactions.

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Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

Acute Exposure: Corrosive. Causes skin and eye burns.

4. FIRST AID MEASURES

Ingestion: If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

Inhalation: Remove to fresh air. Call a physician.

Eyes: Immediately flush eyes with water for at least 15 minutes. Call a physician.

Overexposure Effects: Corrosive - causes skin and eye burns. May cause allergic skin and respiratory reaction.

Medical Conditions Aggravated by Exposure: Skin, eye and pulmonary conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

Flash Point:	108°F (42 °C)
Flash Point Method Used:	PMCC
Flammable Limits in Air (Lower - % by volume):	Not established
Flammable Limits in Air (Upper - % by volume):	Not established

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Danger!

Precautions: Corrosive - causes skin and eye burns. Can cause allergic respiratory reaction and allergic skin reaction. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Skin Protection:** Wear impermeable gloves.**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.**Eye Protection:** Wear splash-proof chemical goggles.**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.**9. PHYSICAL AND CHEMICAL PROPERTIES**

Color:	Yellow to Amber
Odor:	Ammoniacal
Physical State:	Unfilled liquid
Solubility in Water:	Moderate
Vapor Pressure:	33 mm Hg at 66°C (151 °F)
Specific Gravity:	0.92 (water = 1)
Boiling Point:	Not Determined
Evaporation Rate:	Not Determined
Vapor Density:	Not Determined
VOC:	920 g/L
pH:	Not Determined

Percent Volatile: Negligible.**10. STABILITY AND REACTIVITY****Conditions to Avoid:** Excessive heat for prolonged periods of time.**Stability:** Stable.**Incompatibility:** Strong oxidizers, acids and bases.**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.**Hazardous Polymerization:** Will not occur.**11. TOXICOLOGICAL INFORMATION****Sensitization:** Causes allergic skin and respiratory sensitivity in some people.**Skin Irritation:** Corrosive. Causes burns.**Eye Irritation:** Corrosive. Causes burns.**12. ECOLOGICAL INFORMATION**

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13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

14. TRANSPORT INFORMATION**DOT: Non-Bulk**

Proper Shipping Name:	Polyamines, liquid, corrosive, flammable, n.o.s.
Technical Shipping Name (If n.o.s.):	Dimethylaminopropylamine
Hazard Class:	8(3)
ID Number:	UN 2734
Packing Group:	PG II
Label:	Corrosive

15. REGULATORY INFORMATION**US Federal Regulations:**

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): D 001 ignitable.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: Chemical components listed on TSCA Inventory.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines
Common Name: Polyamide Resin
CAS Number: 68410-23-1
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,3- Propanediamine, N,N-dimethyl
Common Name: DMAPA

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CAS Number: 109-55-7
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-
Common Name: Triethylenetetramine
CAS Number: 112-24-3
Comment: Hazardous Substance

16. OTHER INFORMATION

MSDS No: 5845
Approved By: Kenneth L. Payne
Title: E,H&S Manager

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