



MATERIAL SAFETY DATA SHEET



SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: EPY-150 Hardener

April 13, 2010

Vishay Measurements Group, Inc
Post Office Box 27777
Raleigh, NC 27611

919-365-3800

CHEMTREC 1-800-424-9300 (U.S.)
703-527-3887 (Outside U.S.)

NOTE: CHEMTREC numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	CHEMICAL IDENTITY	%
NA	Polyamide Polymer	35-50
NA	Epoxy Polyamine Adduct	20-35
68410-23-1	Polyethylenepolyamine, dimer fatty acid condensate	20-35
111-40-0	Diethylenetriamine	5-10
112-24-3	Triethylenetetramine	1-5

SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: Yes **Skin:** Yes **Ingestion:** Accidental

Health Hazards (Acute and Chronic): Repeated contact or breathing of vapors may cause irritation; material is also a strong sensitizer.

Carcinogenicity: NTP: Not listed
 IARC Monographs: Not listed
 OSHA Regulated: Not listed

Signs and Symptoms of Exposure:

INHALATION: Vapor or aerosol, if generated, can cause irritation of the eyes, nose and respiratory tract. Possible respiratory sensitizer.

EYE CONTACT: Eye contact may cause severe irritation.

SKIN CONTACT: Irritating to the skin. Can be absorbed through skin causing systemic toxic effects. Repeated and/or prolonged contact may cause skin sensitization.

INGESTION: Slightly toxic. Irritant and may cause nausea and vomiting.

Conditions Generally Aggravated by Exposure: Unknown.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Administer oxygen to aid breathing. Get medical attention.

EYE CONTACT: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

SKIN CONTACT: Flush exposed areas thoroughly with soap and water until all chemical is removed. Remove contaminated clothing and launder before reuse. Obtain immediate medical attention.

INGESTION: Do not attempt to give anything by mouth to an unconscious person.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): >208°F (98°C) Pensky-Martens Closed Tester

Flammable limits: LEL: N/A UEL: N/A

Extinguishing Media: Dry chemical, chemical foam, carbon dioxide.

Special Firefighting Procedures: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Cool exposed containers with water spray.

Unusual Fire and Explosion Hazards: Combustible at high temperatures.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Ventilate area. Prevent skin and eye contact. Soak up in absorbent material, or scrape up and transfer to disposal container. Wipe up remaining residue with solvents, observing solvent flammability cautions, or use detergents. Do not allow to enter drains, sewers or watercourses.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

Respiratory Protection: Respiratory protection required if the exposure level is unknown or has been measured and found to exceed the published exposure limits.

Ventilation: Local mechanical ventilation exhaust recommended to keep vapors below TLV.

Protective Gloves: Chemical resistant gloves required.

Eye Protection: Safety glasses, goggles or faceshield to protect against splashing.

Other Protective Clothing or Equipment: As required to prevent contact.

Work / Hygienic Practices: Eye wash station and emergency shower should be available. Wash hands after use or handling and before eating, drinking or smoking.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Store in cool, dry area away from heat, sparks or fire. Keep containers properly sealed when not in use.

Other Precautions: Prevent skin and eye contact. Avoid breathing vapors. Keep away from acids, oxidizing agents, flammable and combustible material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	>348°F (176°C)
Vapor Pressure (mmHg):	Not applicable
Vapor Density (Air = 1):	>1
Specific Gravity (H₂O = 1):	1.1
Melting Point:	Unknown
Evaporation Rate (BuAc = 1):	Not determined
Volatile Organic Compounds:	Not determined
Solubility in Water:	Slightly soluble

Appearance and Odor: Light amber liquid; amine odor.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Avoid contact with metals corroded by liquid amines. Avoid high temperatures.

Incompatibility (Materials to Avoid): Mineral acids, organic acids, sodium hypochlorite, calcium hypochlorite, strong oxidizers.

Hazardous Decomposition or By-products: Carbon monoxide, carbon dioxide, oxides of nitrogen and unknown organics.

Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION
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Polyamide Polymer

OSHA PEL:	None known
ACGIH TLV:	None known
OTHER:	None known

Epoxy Polyamine Adduct

OSHA PEL:	None known
ACGIH TLV:	None known
OTHER:	None known

Polyethylenepolyamine, dimer fatty acid

OSHA PEL:	None known
ACGIH TLV:	None known
OTHER:	ORAL (RAT) LD ₅₀ >8 g/kg

Diethylenetetramine

OSHA PEL:	None known
ACGIH TLV:	None known
OTHER:	ORAL (RAT) LD ₅₀ 1080 mg/kg DERMAL (RABBIT) LD ₅₀ 1090 mg/kg INHALATION (RAT) LC ₅₀ 0.07-0.3 mg/14 Hour

Triethylenetetramine

OSHA PEL:	None known
ACGIH TLV:	None known
OTHER:	ORAL (RAT) LD ₅₀ 2.5 g/kg DERMAL (RABBIT) LD ₅₀ 805 mg/kg

SECTION 12: DISPOSAL CONSIDERATIONS
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Waste Disposal Method: Dispose of in accordance with local, state, and federal environmental regulations.

SECTION 13: TRANSPORTATION INFORMATION

SHIPPING NAME	CLASS PACKING GROUP	UN NUMBER
Corrosive Liquid, N.O.S. (Diethylenetriamine/Fatty Acid Amide)	8	II 1760

SECTION 14: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION:

This product contains a toxic chemical or chemicals (as listed below) subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
None Listed		

TSCA NOTIFICATION:

All components of this product are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

SECTION 15: OTHER INFORMATION

To the best of our knowledge, the information provided above meets the requirements of the United States Occupational Safety and Health Act and regulations established under 29 CFR 1910.1200 (g)(2)(c)(1)-(4) for a mixture of hazardous chemicals which has not been tested as a whole. The data provided on this Material Safety Data Sheet is from manufacturers of the original components. Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.