



**ALDON  
CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. EE 328  
Effective Date September 9, 1998

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	ETHYLENEDIAMINE	<div><div><div>2</div><div>3</div><div>0</div></div><div>CHEMTREC 800-424-9300 Day 716-226-6177</div><div>NFPA HAZARD RATING LEAST SLIGHT MODERATE 0 1 2</div><div>HMIS * HIGH EXTREME 3 4</div></div>
Chemical Synonyms	1,2 - Diaminoethane	
Formula	C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	
Unit Size	up to 4 Lt.	
C.A.S. No.	107-15-3	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ethylenediamine	100%	See section V

**DANGER! FLAMMABLE! CORROSIVE!**

**HARMFUL OR FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	8.5°C (46.4°F)	Specific Gravity (H <sub>2</sub> O = 1)	0.901 @ 25°C
Boiling Point (°F)	118°C (244.4°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	10.7 @ 20°C	Evaporation Rate (Butyl Alc. =1)	0.91
Vapor Density (Air=1)	2.1		
Solubility in Water	Soluble		
Appearance & Odor	Colorless liquid, ammonia like odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	34°C (93.20°F)	Flammable Limits in Air % by Volume	Lower 2.7	Upper 16.6
Extinguisher Media	Dry chemical (ABC); carbon dioxide (CO <sub>2</sub> ); foam.			

### SPECIAL FIREFIGHTING PROCEDURES

Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH-approved, and full protective gear.

Autoignition Temperature: 385°C (725°F)

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO.132)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors may form an explosive mixture with air. Vapors can travel to a source or ignition and flash back. Containers may explode in the heat of a fire. Flammable liquid.

## SECTION V HEALTH HAZARD DATA

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### Threshold Limited Value

TWA: 10 ppm;25mg/m<sup>3</sup> (ACGIH 1992-93).  
Toxicity: orl-rat LD50 500 mg/m<sup>3</sup>. Skin-rbt LD50 730 mg/kg

### Effects of Overexposure

**EYES:** Causes eye burns. Lachrymator. Causes redness and pain. **SKIN:** May cause skin sensitization, severe irritation and possible burns. **INGESTION:** May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. **INHALATION:** May cause severe allergic respiratory reaction, chemical pneumonitis and pulmonary edema. May cause liver and kidney damage.

### Emergency and First Aid Procedures

**EYES:** Immediately flush with plenty water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. **SKIN:** Immediately flush with soap and water while removing contaminated clothing. Get medical aid. **INGESTION:** Do NOT induce vomiting. If conscious give 2-4 cupfuls of milk or water. Get medical aid immediately. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive temperature, heat, ignition sources, moist air or water.
	Stable	X	

Incompatibility (Materials to Avoid)	Strong acids, oxidizers, Carbon disulfide.
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Hazardous Decomposition Products	Nitrogen oxides, Carbon monoxide, Carbon dioxide, ammonia and/or derivatives.
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Hazardous Polymerization	Conditions to Avoid	Not applicable.
May Occur	Will Not Occur	
	X	

## SECTION VII SPILL OR LEAK PROCEDURES

### Steps to be taken in case material is released or spilled

Absorb material in vermiculite or other suitable absorbent. Place into suitable container for proper disposal.

### Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) In laboratory, work in fume hood. If necessary wear a NIOSH/MSHA-approved organic vapor respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves	Rubber gloves	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Lab coat, eye wash station, ventilation hood, proper gloves, fire extinguisher.
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## SECTION IX SPECIAL PRECAUTIONS

### Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Wash thoroughly after handling.

### Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 2	Date 9/9/98	Approved Michael Raszeja	Chemical Safety Coordinator MR
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D.O.T. Ethylenediamine, 8, 3, UN 1604, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20