

EMS CATALOG NO: 13300  
EMS PRODUCT: DMAE  
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MATERIAL SAFETY DATA SHEET

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FOR PRODUCT AND SALES INFORMATION

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CONTACT ELECTRON MICROSCOPY SCIENCES OFFICE ABOVE.

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PRODUCT IDENTIFICATION

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PRODUCT NAME: Dimethylaminoethanol  
CAS NUMBER: 108-01-0  
SYNONYMS: Dimethylethanolamine, DMAE, DMEA, Epoxy Curing Agent S-1  
CHEMICAL NAME: Ethanol, 2-(Dimethylamino)  
MOLECULAR FORMULA: (CH<sub>3</sub>)<sub>2</sub>H(CH<sub>2</sub>CH<sub>2</sub>OH)  
CHEMICAL FAMILY: Alkyl Alkanol Amines

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INGREDIENTS---HAZARD CLASSIFICATIONS

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COMPONENT: Dimethylaminoethanol %: 99.0

COMMENTS: OSHA: Corrosive  
NFPA: 2-2-0

SHIPPING INFORMATION: Corrosive Material, UN 2051

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PHYSICAL PROPERTIES

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BOILING POINT/RANGE: 130-137oC (266-279oF)  
MELTING POINT: Not applicable  
FREEZING POINT: -59oC (-74oF)  
MOLECULAR WEIGHT: 89.1  
SPECIFIC GRAVITY (H2O=1): 0.88-0.89 at 20oC (68oF)  
VAPOR PRESSURE (mm Hg): 4 H at 20oC (68oF)  
VAPOR DENSITY (AIR=1): 3.1  
SOLUBILITY IN H2O: Complete (miscible)  
% VOLATILES BY VOLUME: 100%  
APPEARANCE AND ODOR: Clear, colorless liquid with ammonia-like odor

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FIRE AND EXPLOSION DATA

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FLASH POINT: 40oC (104oF) TAG CC

FLAMMABLE LIMITS: LOWER: Not established  
UPPER: Not established

AUTOIGNITION TEMP: Not established

EXTINGUISHING MEDIA:

Water spray, water stream, CO2, dry chemical, alcohol foam.

SPECIAL FIRE FIGHTING PROCEDURES:

Do not direct water stream into burning liquid. Water may be effective for cooling but not for extinguishing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not established

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**REACTIVITY**

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**STABILITY:** Stable

**CONDITIONS CONTRIBUTING TO INSTABILITY:** Not applicable

**INCOMPATIBILITY - AVOID CONTACT WITH:** Strong acids  
Strong oxidizers

Reaction may generate heat or toxic and irritating fumes.

**HAZARDOUS DECOMPOSITION THERMAL AND OTHER:**

Thermal decomposition products include carbon monoxide, carbon dioxide, and nitrogen oxides.

**CONDITIONS TO AVOID:** Heat, Flames, Acids, Oxidizers

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**TOXICITY**

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ROUTE	ANIMAL	DATA
Oral	Rat	LD50: 2340 mg/kg
Dermal	Rabbit	LD50: 1370 mg/kg
Inhalation	Rat	LC50: (4 hr): 1640 ppm

**TOXIC EFFECTS/ROUTES OF ENTRY:**

**EYE EFFECTS:** Corrosive  
**SKIN EFFECTS:** Corrosive  
**OTHER TOXIC EFFECTS:** Corrosive to eyes, skin and mucous membranes.

**TOXICITY COMMENTS:**

Harmful if inhaled, swallowed, or absorbed through skin. Contact with eyes may cause blindness. Inhalation causes severe damage to the upper respiratory tract. This chemical may stimulate the central nervous system, possibly resulting in restlessness, coordination, tremors and convulsions.

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**HEALTH HAZARD INFORMATION**

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**PERMISSIBLE EXPOSURE LIMITS:**

**ACGIH 1993 TLV/TWA:** Not established

**EMERGENCY FIRST AID:**

**INGESTION:** Do not induce vomiting. Give plenty of water. Get medical attention.

DERMAL: Wash with soap and water. Get medical attention. Contaminated clothing - remove and launder. Contaminated shoes - destroy. Begin treatment as quickly as possible.

EYE CONTACT: Flush with plenty of water for at least 15 minutes. Get medical attention. Begin treatment as quickly as possible.

INHALATION: Remove to fresh air. If not breathing give artificial respiration. Give oxygen. Get medical attention.

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#### SPECIAL PROTECTION INFORMATION

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VENTILATION REQUIREMENTS: Use with adequate ventilation

EYE: Face shield, goggles

HAND (GLOVE TYPE): Synthetic rubber

RESPIRATOR TYPE: Cartridge

FILTERS: Mist

OTHER PROTECTIVE EQUIPMENT: Boots, apron

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#### SPECIAL HANDLING AND STORAGE CONDITIONS

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Wash thoroughly after handling.  
Do not get in eyes, on skin or clothing.  
Do not breathe dust, vapor, mist, gas.  
Keep container closed.  
Keep away from heat, sparks, and open flames.  
Empty container may contain hazardous residues.  
Do not cut, drill, grind, or weld on container.  
Store away from acids and oxidizers.  
Read label before use.

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#### SPILL MANAGEMENT

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- - - PREVENT SPREAD OF SPILL - - -

SMALL SPILLS (LESS THAN ONE GALLON): Flush spill area with water.

LARGER AMOUNTS: Absorb with sand or inert material. Place in container and seal. Flush spill area with water.

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#### DISPOSAL PROCEDURES

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Absorbed and bulk material may be incinerated but toxic combustion products must be handled appropriately.

Consult federal, state, or local authorities for proper disposal procedures.

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#### ADDITIONAL INFORMATION

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This chemical is reported on the United States Environmental Protection Agency Toxic Substances Control Act Inventory. As of the date on which this Material Safety Data Sheet was prepared, this chemical was not listed under California Proposition 65.

This chemical is not classified as a carcinogen by IARC, NTP, or OSHA. This chemical is listed as a "Hazardous Substance": under the Pennsylvania Right to Know Act. The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control.