

Material Safety Data Sheet



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Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Ethylenediamine

Product Code(s): 86-1770

Size: 100ml

Chemical Name: Ethylenediamine

CAS Number: 107-15-3

Formula: C₂H₈N₂

Synonyms: 1,2 - Diaminoethane

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Flammable. Causes burns. Very Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Potential Health Effects:

Eyes: Causes severe burns and eye damage upon direct contact. Vapor is irritating.

Ingestion: May severely irritate or damage digestive tract.

Skin: May cause severe irritation or chemical burns. May cause sensitisation by skin contact.

Inhalation: May severely irritate or damage mucous membranes and respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ethylenediamine (CAS # 107-15-3) 100%

TLV units: 10 ppm (TWA)

PEL units: N/A

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, wash immediately with plenty of water.

Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): 34 °C

NFPA Rating:

Health: 3

Fire: 3

Reactivity: 0

Extinguisher Media: Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: LEL: 2.7%; UEL: 16.6% N/A

Autoignition Temperature: 385 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

In use, may form flammable/explosive vapour-air mixture.

Flammable.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place.

Keep away from sources of ignition - No smoking.

This material should be kept in an area suitable for the storage of flammable liquids. Store away from oxidizing agents, sparks and flame.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Avoid contact with skin and eyes.

Use only in well-ventilated areas.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 60.1

Boiling Point: 118 °C

Vapor Density(Air=1): 2.1

Percent Volatile by Volume: 100%

Solubility in Water: Soluble

Melting Point: 8.5 °C

Vapor Pressure: 10.7 mmHg 20 °C

Specific Gravity (H2O=1): 0.901 at 25 °C

Evaporation Rate (BuAc=1): 0.91

Appearance and Odor: Clear, colorless liquid, Ammonia odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Water; Product is water reactive.

Incompatibility (Materials to Avoid): Acids, Oxidizers, Sulfides,

Hazardous Decomposition Products: CO_x, NO_x, Nitrogen compounds,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: orl-rat LD50 500 mg/kg

skn-rbt LD50 730 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: Respiratory disorders, Liver disorders, Impaired Kidney Function,

Target Organs: Respiratory system, Liver, Kidneys, Skin, Eyes, Mucous Membranes,

Primary Route(s) of Entry: Inhalation, ingestion, eye or skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1604, Ethylenediamine, 8, (3), PG II, Ltd Qty < 1 Lt.

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

No

Chemical Category:

No

CERCLA Section 103 RQ(lb.): 5000

RCRA Section 261.33: No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Services Abstract Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC International Agency of Research on Cancer

N/A Not Available

NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act