# **SDS #:** 327.00 **Revision Date:** December 13, 2013

# SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

# Ethylenediamine

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

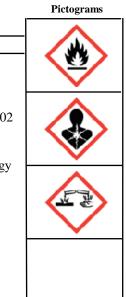
#### Signal Word DANGER

## SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 2). Highly flammable liquid and vapor (H225). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).

Hazard class: Acute toxicity, oral and dermal (Category 4). Harmful if swallowed or in contact with skin (H302 +H312). Do not eat, drink, or smoke when using this product (P270).

Hazard class: Sensitization, skin and respiratory tract (Category 1). May cause an allergic skin reaction, allergy or asthma symptoms or breathing difficulties if inhaled (H317+H334). Avoid breathing mist, vapors or spray (P261).



#### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Ethylenediamine	107-15-3	H <sub>2</sub> NCH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	60.10	
Synonyms: 1,2-Diaminoethane, 1,2-Ethanediamine				

# SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician (P311). **If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). **If experiencing respiratory symptoms:** Call a POISON CENTER or physician (P342+P311). **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. **If on skin (or hair):** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). **If skin irritation or rash occurs:** Get medical advice or attention (P333+P313). Wash contaminated clothing before reuse (P363). **If swallowed:** Rinse mouth. Call a POISON CENTER or physician if you feel unwell (P302+P301+P312).

#### SECTION 5 — FIRE FIGHTING MEASURES

Flash point: 43 °C Lower: 1.1% Upper: 5.8% Autoignition Temperature: 385 °C	H-3
When heated to decomposition, may emit toxic fumes.	F-2
In case of fire: Use tri-class dry chemical fire extinguisher (P370+P378).	R-0

# SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

# FLINN SCIENTIFIC, INC.Safety Data SheetEthylenediamine

**SDS #:** 327.00 **Revision Date:** December 13, 2013

#### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines, and amides. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor<sup>TM</sup> can. Absorbs carbon dioxide from air, keep container tightly closed (P233) and store in a Flinn Chem-Saf<sup>TM</sup> bag. Keep cool (P235).

#### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash thoroughly after handling (P264). Contaminated work clothing should not be allowed out of the workplace (P272). In case of inadequate ventilation, wear respiratory protection (P285). Exposure guidelines: PEL/TLV 25 mg/m<sup>3</sup> (OSHA, ACGIH), Readily absorbed through the skin.

#### SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear, colorless liquid. Ammonia odor. Strong base. Soluble: Water and alcohol Boiling point: 117 °C Melting point: 11 °C Refractive index: 1.4565 Specific gravity: 0.8979

## SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with acids, acid chlorides, oxidizers, acid anhydrides, phosphorus halides, heat, open flame, or any source of ignition.

Shelf life: Poor, absorbs carbon dioxide from air, keep container tightly closed. See Section 7 for further information.

#### SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Skin and respiratory tract irritation, sensitization dermatitis, asthma. Chronic effects: Liver, kidney damage. Target organs: Skin, respiratory system, liver, kidneys. ORL-RAT LD<sub>50</sub>: 1200 mg/kg IHL-RAT LC<sub>50</sub>: 300 mg/m<sup>3</sup> SKN-RBT LD<sub>50</sub>: 730 mg/kg

N.A. = Not available, not all health aspects of this substance have been fully investigated.

## SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

#### SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding. Flinn Suggested Disposal Method #26b is one option.

#### SECTION 14 — TRANSPORT INFORMATION

Shipping name: Ethylenediamine. Hazard class: 8, Corrosive, flammable liquid. UN number: UN1604.

#### N/A = Not applicable

#### SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (203-468-6), RCRA code D001.

#### SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data shall not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(s).

#### Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

© 2013 Flinn Scientific, Inc. All Rights Reserved.