

Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Hexamethylenediamine

Signal Word
DANGER

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

Chemtrec Emergency Phone Number: (800) 424-9841

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

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). Do not breathe mist, vapors or spray (P260).



Hazard class: Specific target organ toxicity, single exposure; respiratory tract irritation (Category 3). May cause respiratory irritation (H335).



SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Hexamethylenediamine	124-09-4	H ₂ N(CH ₂) ₆ NH ₂	116.2	80-95%
Water	7732-18-5	H ₂ O	18.00	5-20%
Synonyms: 1,6-Diaminohexane; 1,6-Hexanediamine				

SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P310).

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338).

If on skin or hair: Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). Wash contaminated clothing before reuse (P363). **If swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331).

SECTION 5 — FIRE FIGHTING MEASURES

Combustible solution.

Flash point: 85 °C (OC) Flammable limits: Lower: 0.9% Upper: 4.1%

NFPA Code

None established

When heated to decomposition, may emit toxic fumes.

In case of fire: Use a tri-class dry chemical fire extinguisher.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines and amides.

Keep container tightly closed (P233). Use only in a hood or well-ventilated area (P271).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271).

Exposure guidelines: (as hexamethylenediamine) TLV 0.5 ppm (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Colorless liquid. Odorless.

Boiling point: 205 °C

Soluble: Water. Slightly in alcohol and benzene.

Melting point: 42 °C

Material is produced with 5-20% water for commercial purposes.

Specific gravity: 0.91

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with acids, oxidizers, isocyanates, aldehydes, ketones, anhydrides, phenols, nitrates, and halogenated compounds.

May be a liquid or solid at room temperature depending on the amount of water present.

Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Causes severe skin burns and eye damage. May cause respiratory irritation.

ORL-RAT LD₅₀: 750 mg/kg

IHL-RAT LC₅₀: greater than 950 mg/m³

Chronic effects: N.A.

SKN-RBT LD₅₀: 1110 mg/kg

Target organs: Skin, eyes, and respiratory tract.

SECTION 12 — ECOLOGICAL INFORMATION

48-hr LC₅₀ Daphnia magna: 50 mg/L, slightly toxic.

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: Hexamethylenediamine, solid. Hazard class: 8, Corrosive. UN number: UN2280.

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (204-679-6).

SECTION 16 — OTHER INFORMATION

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

N/A = Not applicable

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

Revision Date: March 25, 2014
