

FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 96.00

Revision Date: November 25, 2002

Section 1 — Chemical Product and Company Identification

Barium Nitrate and Solutions

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

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Barium Nitrate And Solutions: Barium Nitrate (10022-31-8) 2.5-8.0% and Water (7732-18-5) 92-97.5%

CAS#: 10022-31-8

Section 3 — Hazards Identification

Lustrous white crystals or clear colorless liquid. Odorless.

Moderately toxic by ingestion or inhalation, irritant. Avoid contact with eyes, skin and mucous membranes. Strong oxidizer may explode when heated. All soluble barium compounds are poisonous if swallowed and cause nausea, vomiting, stomach pains and diarrhea.

FLINN AT-A-GLANCE

Health-2
Flammability-0
Reactivity-3
Exposure-2
Storage-0

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Induce vomiting. After vomiting, give a mixture of 1 Tbs. magnesium sulfate in one cup of water. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Non flammable, non combustible solid or liquid.

Fire risk; strong oxidizer. When heated to decomposition, it emits toxic fumes of NO_x.

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None Established

Section 6 — Accidental Release Measures

If liquid: Restrict unprotected personnel from area and ventilate area. Contain spill with sand or absorbent material; deposit in sealed bag or container. See Sections 8 and 13 for further information.

If solid: Restrict unprotected personnel from area. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Inorganic #3. Store with amides, nitrates and nitrites.

Use and dispense in a hood.

Store in a cool dry place. May explode when heated.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 0.5 mg/m³ (Ba) (OSHA, ACGIH)

Section 9 — Physical and Chemical Properties

White crystalline powder.

0.1M Barium Nitrate CAS#: 10022-31-8 2.6%

0.3M Barium Nitrate CAS#: 10022-31-8 7.5-8.0%

Solubility: Soluble in water; insoluble in alcohol.

Formula: Ba(NO₃)₂

Formula Weight: 592 C

Specific Gravity: 3.24

Boiling Point: Decomposition

Section 10 — Stability and Reactivity

Avoid contact with acids, bases, acid anhydrides, reducing agents, organic compounds, moisture and heat.

Shelf life: Indefinite.

Section 11 — Toxicological Information

Acute effects: toxic, irritant

Chronic effects: N.A.

Target organs: heart, nerves, kidneys, GI system, bone marrow, spleen, liver, blood.

ORL-RAT LD50: 355 mg/kg

IHL-RAT LC50: N.A.

SKN-RBT LD50: N.A.

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 consult with state and local regulations.

Flinn Suggested Disposal Method #27h is one option.

Section 14 — Transport Information

Shipping Name: Barium Nitrate

Hazard Class: 5.1, Oxidizer, Poison

UN Number: UN1446

N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (233-020-5), RCRA D001, D005.

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) 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. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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