

MATERIAL SAFETY DATA SHEET

SECTION I NAME

Product	BARIUM-CHLORIDE	
Chemical Synonyms	Barium Chloride	
Formula	(a) BaCl ₂ (b) BaCl ₂ · 2H ₂ O	
Unit(s) Size	100 g. to 2.5 kg.	
C.A.S. No.	10361-37-2	

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	Barium Chloride	TLV Units	See Section V
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DANGER! ☠ POISON ☠ MAY BE FATAL IF SWALLOWED
 CAUSES IRRITATION-MAY BE HARMFUL IF INHALED.

SECTION III PHYSICAL DATA

Melting Point (°F)	Transition 925°C.
Boiling Point (°F)	2840°F (1560°C)
Vapor Pressure (mm Hg)	Negligible as solid.
Vapor Density (Air = 1)	7.21
Solubility in Water	31 grams per 100 mL water @ 32°F (BaCl ₂).
Appearance and Odor	Fine white crystals or powder; no odor.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-Flammable (NA)	Flammable Limits in Air	Lower NA	Upper NA
Extinguisher Media	Any media suitable for extinguishing the supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES
 A MIOSH-approved self-contained breathing apparatus should be worn for protection against barium-containing dust, mist and fumes. Wear full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products.

D.O.T. POISON B, SOLID, N.O.S.

FREY SCIENTIFIC
 905 HICKORY LANE MANSFIELD OHIO 44905
 Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

MSDS No. _____
 Effective Date _____

SECTION V HEALTH HAZARD DATA

Threshold Limited Value
 List (1976) gives; orl-hm TDL: 80mg/Kg.; orl-rat LDLO: 335mg/Kg.
 TWA: 0.5mg/m³ as Barium (ACGIH, 1983-84). U.S. H.E.M. Toxic Substance

Effects of Overexposure
 HARMFUL OR FATAL IF SWALLOWED. Oral intake may cause weakness, salivation and nausea, followed by vomiting and diarrhea. Patient may become cold and experience varying degrees of paralysis. **INHALATION:** May be harmful, with symptoms similar to those of oral intake. Observe allowable limits. **EYES AND SKIN CONTACT:** Not usually severe, but may cause irritation to sensitive individuals.

Emergency and First Aid Procedures
 If swallowed, if conscious, immediately give two tablespoons of Epsom Salt (magnesium sulfate) or Glauber's Salt (Sodium sulfate) in a glass of water. Follow this by administering as much milk as possible (water, if milk is unavailable), then induce vomiting. CALL A PHYSICIAN. **EYE OR SKIN CONTACT:** Flush with water. For eyes, if irritation persists get medical attention.

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SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive temperature and heat.
	Stable		

Incompatibility (Materials to avoid)
 We have no data on this product.

Hazardous Decomposition Products
 Thermal decomposition or burning may produce hydrochloric acid and barium oxide, barium dust.

Hazardous Polymerization
 May Occur Will Not Occur

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled
 Sweep up and collect in dry state and place in a suitable container. Residue can be flushed to sewer with water. Use U.S.-M. approved toxic dust respirator.

Waste Disposal Method
 Dispose of in an approved chemical landfill or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection None should be needed in normal laboratory handling. If dusty conditions prevail work in ventilation hood or wear a MIOSH-approved dust mask or respirator.

Ventilation	Local Exhaust Recommended	Special No.
	Mechanical (General)	Other No.


Protective Gloves Rubber. **Eye Protection** Chemical safety glasses. Other Protective Equipment Goggles, lab coat or apron, vented hood, proper gloves, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing
 Store in a dry place, away from food products. Wash thoroughly after handling. Keep container tightly closed when not in use.

Other Precautions
 Read label on container before using.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. No. **Date** 1/12/87 **Approved**  **Chemical Safety Coordinator**

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