

MATERIAL SAFETY DATA SHEET (MSDS)

EM Science
M A T E R I A L S A F E T Y D A T A S H E E T

Section I Product Identification and Use

Manufacturer: EM SCIENCE A Division of EM Industries P.O. Box 70 480 Democrat Road Gibbstown, N.J. 08027	For More Information Call 856-423-6300 Technical Service Monday - Friday; 8:00 AM to 5:00 PM In Case of Emergency Call 800-424-9300 CHEMTREC (USA) 416-201-6383 CANUTECH (Canada) 24 Hours/Day: 7 Days/Week
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Product Name: Barium chloride anhydrous
Product Code(s): B86510, M01716,
Chemical Name/Other Name: Barium chloride anhydrous
Chemical Formula: BaCl₂
Chemical Family: Inorganic salt
TDG Shipping Name/UN: Barium compounds, N.O.S. (Barium chloride) UN 1564
TDG Classification/Packing group: 6.1 PG III
Use: Laboratory reagent, industrial processes

Section II Hazardous Ingredients

Chemical name	CAS No.	%
Barium chloride	10361-37-2	100

Section III Physical Data

Physical State: Solid
Appearance and Odour: White crystals; odourless
Odour Threshold: Not applicable
Specific Gravity: 3.86
Vapour Pressure: Not applicable
Vapour Density: Not applicable
Evaporation Rate: Not applicable
Boiling Point: 1560°C
Freezing Point: 963°C
pH: 5.0 - 8.0 (5% aqueous solution)
Coefficient of water/oil distribution: Not available

Section IV Fire or Explosion Hazard

Conditions of Flammability: Noncombustible
Extinguishing Media: Use an extinguisher appropriate to the surrounding material that is burning
Flash point / method: Not applicable
UEL: Not applicable
LEL: Not applicable
Autoignition Temperature: Not applicable
Hazardous Combustion Products: BaO
Explosion data - sensitivity to mechanical impact: No
- sensitivity to static discharge: No

Section V Reactivity Data

Conditions of instability: Normally stable, may decompose on exposure to heat
Incompatibilities: Metals, hydrides, hydroxides, nitrates, oxides, sulphates, BrF₃, sulphides, 2-furan percarboxylic acid
Conditions of reactivity: Normally stable
Hazardous decomposition products: BaO

Section VI Toxicological Properties / Health Hazard Data

Route of entry:

- skin contact:** May irritate
- skin absorption:** Risk of absorption is slight
- eye contact:** Irritates
- inhalation:** Irritates
- ingestion:** Toxic

LC₅₀: Not available

LD₅₀: 118 mg/kg (orl-rat)

Exposure Limits: TLV: 0.5 mg/m³ (Barium)

Effects of Acute Exposure: This product irritates the eyes and respiratory passages and may irritate the skin. Ingestion is toxic and will cause nausea, vomiting, diarrhea, abdominal pain, gastroenteritis, tremors, faintness, salivation, confusion, decreased pulse, paralysis, collapse, respiratory failure or in extreme cases, death. Inhalation of this product will cause sore throat, breathing difficulties, or due to respiratory absorption, symptoms parallel to those of ingestion.

Effects of Chronic Exposure: Prolonged or repeated overexposure to this product may cause dermatitis.

Irritancy: No experimental information available

Sensitization to Product: No information available

Carcinogenicity: No information available

Reproductive Toxicity: May cause reproductive effects; references cited: RTECS# CQ8750000

Teratogenicity: No information available

Mutagenicity: No information available

Toxicologically Synergistic Products: None found

Section VII First aid measures

Skin: Flush the contact area with lukewarm running water for at least 15 minutes. Remove contaminated clothing, taking care not to spread the chemical. If contamination is extensive, remove clothing under running water. Discard or decontaminate clothing under running water. Discard or decontaminate clothing before use. Unless contact has been slight, seek medical attention. Seek medical attention if irritation persists.

Eye: Flush the contaminated eye(s) for at least 15 minutes with lukewarm running water, holding the eyelids open. Take care not to rinse contaminated water into the non-affected eye. Always seek medical attention for accidents involving the eyes.

Inhalation: Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Do not induce vomiting. Have victim drink 200-400 ml of water to dilute. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Section VIII Preventive Measures

Engineering Controls: Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification. Administrative controls and personal protective equipment may also be required.

Personal protective equipment:

- gloves:** Rubber, plastic
- respiratory protection:** Approved respirator or fume hood as appropriate
- eye protection:** Chemical safety goggles
- clothing:** Plastic apron, sleeves and boots as appropriate

Storage Requirements: Store in suitable labelled containers. Keep containers tightly closed when not in use and when empty. Protect from damage. Store away from incompatible materials.

Handling Procedures and Equipment: Avoid generating dust. Follow routine safe handling procedures.

Leak or Spill Clean-up: Before dealing with spillages take necessary protective measures, inform others to keep at a safe distance and, for flammable materials, shut off all possible sources of ignition. Transfer carefully into container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

Disposal: Follow all federal, provincial and local regulations for disposal. Use only licensed disposal and waste hauling companies. Disposal of small amounts of spilled material may be handled as described under "Leak or Spill Cleanup". Large spills must be dealt with separately and must be handled by qualified disposal companies.

Special Shipping Information: Follow all TDG regulations and see classification in Section I

Section IX Preparation Information

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WHMIS Classification: D1B, D2B

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