



Registered Off. : 101-A, Deep Enclave, Pocket 'D', Ashok Vihar, Phase-III, Delhi-110 052 (India)
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)
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BARIUM HYDROXIDE

1. Product Identification

Synonyms: Barium hydroxide octahydrate; barium hydrate; barium hydroxide, 8-hydrate

CAS No.: 17194-00-2 (Anhydrous) 12230-71-6 (Octahydrate)

Molecular Weight: 315.47

Chemical Formula: $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$

Product Code : 30295, 38157

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Barium Hydroxide	12230-71-6	90 - 100%

3. Hazards Identification

Potential Health Effects

Inhalation: Inhalation of dust cause irritation to the nose, throat, and respiratory tract. Symptoms include sore throat, coughing, and shortness of breath. Systemic poisoning may occur in sensitive individuals with symptoms similar to those of ingestion.

Ingestion: Causes severe irritation of the gastrointestinal tract, tightness in the muscles of the face and neck, vomiting, diarrhea, abdominal pain, muscular tremors, anxiety, weakness, labored breathing, cardiac irregularity, convulsions

Skin Contact: Solutions are strongly alkaline, highly irritating and may cause burns.

Eye Contact: Dusts cause eye irritation. Solutions may cause burns and damage.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin and nervous system disorders or impaired respiratory or kidney function may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: If swallowed, give large quantities of water to drink and get medical attention immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician: Treatment is symptomatic and supportive. Sodium sulfate can be given in case of ingestion to precipitate out the barium as barium sulfate.



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5. Fire Fighting Measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self Contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

For Soluble Barium Compounds:

OSHA Permissible Exposure Limit (PEL):

0.5 mg (Ba)/m³

ACGIH Threshold Limit Value (TLV):

0.5 mg (Ba)/m³ A4 - not classifiable as a human carcinogen

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Colorless or white crystals.

Odor: Odorless.

Solubility: 5.6g/100g water @ 15C (59F).

Density: 2.18

pH: Aqueous solutions are strongly alkaline.

% Volatiles by volume @ 21C (70F): 0

Boiling Point: 780C (1436F)

Melting Point: 78C (172F)

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate (BuAc=1): No information found.

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. 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 the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



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10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Very Alkaline. Rapidly absorbs carbon dioxide from air, becoming completely insoluble in water.

Hazardous Decomposition Products: No information found.

Hazardous Polymerization: Will not occur.

Incompatibilities: Acids, oxidizers, chlorinated rubber. Corrosive to metals such as zinc.

Conditions to Avoid: Air, dusting, and incompatibles.

11. Toxicological Information

Anhydrous: Oral rat LD50: 308 mg/kg.

12. Ecological Information

Environmental Fate: This material may bioaccumulate to some extent.

Environmental Toxicity: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Land

Proper Shipping Name : BARIUM HYDROXIDE

Hazard Class: 6.1

UN/NA: UN 2923

Packing Group: II

Information reported for product/size: 100LB

International (Water, I.M.O.)

Proper Shipping Name: BARIUM HYDROXIDE

Hazard Class: 6.1

UN/NA: UN2923

Packing Group: II

Information reported for product/size: 100LB

International (Air, I.C.A.O.)

Proper Shipping Name: BARIUM HYDROXIDE

Hazard Class: 6.1

UN/NA: UN 2923

Packing Group: II

Information reported for product/size: 100LB



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15. Regulatory Information

SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No

Reactivity: No (Pure / Solid)

16. Other Information

Product Use:

Laboratory Reagent.