

Safety Data Sheet: Barium Hydroxide Monohydrate

1. Identification

Product	Barium Hydroxide Monohydrate; CAS 22326-55-2; EC 241-234-5
Use	Professional industrial ingredient and polymer formulation development.
Company	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / email	+86-21-54265599 / sales@zxchem.com.cn
Emergency contact	ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.
Scope	Reference safety information for Barium Hydroxide Monohydrate. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazards Identification

Classification	Acute oral and inhalation toxicity Category 4; skin corrosion Category 1A; serious eye damage Category 1.
Signal word / symbols	Danger; GHS05, GHS07
Hazard statements	H302/H332: harmful if swallowed or inhaled. H314: causes severe skin burns and eye damage.
Prevention	Use adequate ventilation; avoid inhaling dust. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.
Response	After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.
Environment	Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.



3. Composition / Information on Ingredients

Reference ingredient	Barium hydroxide monohydrate, CAS 22326-55-2. Local assay ≥99%; hydration state is part of the product identity.
Supply grade	Assay ≥99%
Applicability	The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document.

4. First-Aid Measures

General	Urgent medical assessment is required after corrosive exposure. Protect rescuers and provide this sheet to medical personnel.
Inhalation	Move to fresh air and obtain emergency medical help. Trained responders should use assisted-ventilation equipment when required; avoid direct mouth-to-mouth exposure.
Skin	Remove contaminated clothing while flushing with running water. Continue washing and seek urgent treatment for chemical burns.
Eyes	Flush gently with clean water for at least 15 minutes, removing contact lenses when easy. Continue rinsing and obtain immediate medical care.
Ingestion	Rinse the mouth, do not induce vomiting and seek emergency treatment. Give nothing by mouth to an unconscious person.
Effects / treatment	Corrosive injury and systemic barium toxicity require clinician-directed treatment.

5. Fire-Fighting Measures

Extinguishing media	Use water spray, foam, dry chemical or carbon dioxide suited to the surrounding fire.
Hazards	Severe heating may release irritating fumes.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personnel	Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and dust exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Collect spilled solid without raising dust into closed labelled containers.

7. Handling and Storage

Handling	Use controlled enclosed feeding or extraction; prevent corrosive dust exposure. Wear compatible chemical gloves, tightly sealing goggles, face protection and protective clothing. Maintain emergency washing facilities.
Storage	Keep tightly sealed in a cool, dry, ventilated corrosives storage area with restricted access. Protect liners from moisture and separate from acids, oxidizers and incompatible chemicals.
Incompatibilities	Strong acids and oxidizers; avoid uncontrolled neutralization.

8. Exposure Controls / Personal Protection

Exposure limits	Reference ACGIH and NIOSH TWA for barium hydroxide monohydrate: 0.5 mg/m ³ . Apply current local requirements and effective dust extraction.
Engineering controls	Use local extraction where dust can be generated. Maintain accessible eyewash and emergency washing facilities.
Personal protection	Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.
Respiratory protection	Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.
Hygiene	Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.

9. Physical and Chemical Properties

Appearance	White crystals
Formula / molecular weight	Ba(OH) ₂ ·H ₂ O / 189.36 g/mol
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Assay, supply	≥99%
Formula / molecular weight	Ba(OH) ₂ ·H ₂ O / 189.36 g/mol
Other properties	Additional physicochemical properties beyond the stated values are not established for the supply grade. No unstated values are inferred.

10. Stability and Reactivity

Stability	Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.
Incompatibilities	Strong acids and oxidizers; avoid uncontrolled neutralization.
Decomposition	Severe heating may release irritating fumes.

11. Toxicological Information

Exposure effects	Corrosive exposure can cause severe injury; soluble barium exposure requires urgent medical assessment.
Reference classification	Acute oral and inhalation toxicity Category 4; skin corrosion Category 1A; serious eye damage Category 1.
Toxicological data	The reference does not provide complete numerical acute or chronic toxicity data for the supplied grade. No absence of effects is inferred.

12. Ecological Information

Environmental effects	Prevent discharge to soil, drains and receiving water. Retain cleanup waste; the reference does not establish complete environmental fate data for the supplied grade.
Controls	Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.
Assessment	No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.

13. Disposal Considerations

Product	Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements.
Packaging	Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.

14. Transport Information

Classification	Class 8 — Corrosive solid
UN number	UN 3262
Shipping name	Corrosive solid, basic, inorganic, n.o.s. (barium hydroxide monohydrate)
Class / packing group	DOT, TDG, IMDG and IATA: Class 8, UN 3262, packing group II in the full reference.
Transport precautions	Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment.

15. Regulatory Information

Identity	Barium Hydroxide Monohydrate; CAS 22326-55-2; EC 241-234-5
HS reference	281640; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish finished-product authorization.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H302/H332: harmful if swallowed or inhaled. H314: causes severe skin burns and eye damage.
Limitations	Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.
Revision	2026.2; prepared 2026-10-06. Customer-document branding and title corrected; technical safety data retained.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.

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