

SAFETY DATA SHEET

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ProChem inc.

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Barium Hydroxide Hydrate**

PRODUCT NUMBER: 1197

CAS NUMBER: 40226-30-0

MANUFACTURER:

ProChem, Inc.
826 Roosevelt Road
Rockford, IL 61109

PHONE: 815-398-1788
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Acute toxicity, Oral: Harmful if swallowed	Category - 4
Acute toxicity, Inhalation: Harmful if Inhaled	Category - 4
Skin corrosion / irritation	Category - 1B
Serious eye damage	Category - 1

Pictogram



Signal Word **Danger**

Hazard Statements

H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke, when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/face protection/eye protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340+P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER / DOCTOR
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / DOCTOR
P363	Wash contaminated clothing before reuse.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $Ba(OH)\cdot XH_2O$

Molecular Weight: 315.46 (anhy.)

CHEMICAL NAME	CAS#	%
Barium Hydroxide Hydrate.	40226-30-0	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.
SKIN EXPOSURE: Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists. Prolonged contact with moist skin may cause irritation or chemical burns.
INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.
INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.
CHRONIC HEALTH EFFECTS: Barium may form a protein adduct in serum and deposit in bone. Long term exposure to dust may cause baritosis, a benign pneumoconiosis.
ACUTE HEALTH EFFECTS: May be irritating to skin, eyes, and respiratory tract. Barium poisoning causes muscular tremors, convulsions, and death from respiratory and cardiac failure.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable.
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: This product does not present an explosion hazard.
EXTINGUISHING MEDIUM: Carbon dioxide, dry chemical, dry sand, alcohol-resistant foam.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Barium oxide

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Spills can be mixed with vermiculite or sodium carbonate. Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Work under a hood to ensure adequate ventilation. Avoid contact with skin and eyes. Handle under dry protective gas.
CONDITIONS FOR SAFE STORAGE: Store tightly in a cool, dry, and well-ventilated area. Store away from air, water, moisture, and oxidizing agents. Do not store with acids. Store under dry inert gas. Protect from humidity and water.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Barium Hydroxide Hydrate	0.5 mg/m^3	TWA	ACGIH
	0.5 mg/m^3	PEL	OSHA

TWA: Time Weighted Average over 8 hours of work. PEL: Permissible Exposure Limit

EYE PROTECTION: May cause severe irritation of the eyes resulting in redness, chemical burns, and watering. Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.
VENTILATION: Provide local exhaust, preferably mechanical.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

RESPIRATOR: Use an approved respirator as it may cause difficulty in breathing and irritate the mucous membranes and respiratory tract.
INGESTION: Ingestion may cause stomach cramps, vomiting, ulceration, and acute barium poisoning.
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White solid
ODOR: Odorless
MOLECULAR WEIGHT: 315.46 (anhy.)
BOILING POINT: No data available
MELTING POINT: 78° C
SPECIFIC GRAVITY: 2.18
VAPOR DENSITY: No data available
SOLUBILITY IN WATER: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: None
INCOMPATIBILITY: Strong acids
DECOMPOSITION PRODUCTS: Barium oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – 550 mg/kg. LC50 Inhalation – 4 h – 1.5 mg/l – dust/mist
CARCINOGENIC EFFECTS: No component of this product present at levels greater than or equal to 0.1% this is considered to be a human carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
RTECS: No data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No information available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3262
Corrosive solid, basic, inorganic, n.o.s.
(Barium Hydroxide Hydrate)
Class 8
PG II

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

SARA 302/304: Not Listed
SARA 311/312: Acute Health Hazard, Chronic Health Hazard
SARA (TITLE 313): Barium Hydroxide
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.
NEW JERSEY RIGHT TO KNOW COMPONENTS: Barium Hydroxide
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Barium Hydroxide
TSCA: No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16 OTHER INFORMATION

HMIS CLASSIFICATION:
Health: 3 Chronic: * Fire: 0 Reactivity Hazard: 0
NFPA RATING:
Health: 3 Flammability: 0 Reactivity Hazard: 1

CAS #: Chemical Abstracts Service Number
(anhy.): anhydrous, which means "without water"
mg/m3: milligrams per cubic meter
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
ACGIH: American Conference of Governmental Industrial Hygienists
OSHA: Occupational Safety and Health Administration
RTECS: Registry of Toxic Effects of Chemical Substances
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%.
EC10: Lethal Concentration, 10%
EC50: Lethal Concentration, 50%
ACGIH: American Conference of Governmental Industrial Hygienists
mg/l: milligrams per liter
mg/kg: milligrams per kilogram
UN: United Nations
n.o.s: Not Otherwise Specified
PG: Packing Group
TSCA: Toxic Substances Control Act
SARA: Superfund Amendments and Reauthorization Act
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE REVISED: 08/26
REVISION SUMMARY: Removed fax number. Updated section # 2 categories and Hazard Statement codes (P304+P340+P310 & P305+P351+P338+P310). Updated section # 11 LC50 Inhalation data. Section # 15 added TASA information and Section # 16 added HMIS / NFPA and updated abbreviations. All other details in this document about this product remained unchanged. Revisions made by EHS / 08/06/2026

EHS/SDS DEPT.