



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Barium Nitrate**  
PRODUCT NUMBER: 1207  
CAS NUMBER: 10022-31-8  
SYNONYMS: Barium dinitrate, Nitric acid, barium salt

### MANUFACTURER:

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Warning**

### Hazard Statements

|           |                                     |
|-----------|-------------------------------------|
| H272      | May intensify fire, oxidizer.       |
| H302+H332 | Harmful if swallowed or if inhaled. |
| H319      | Causes serious eye irritation.      |

### Precautionary Phrases

|                |  |
|----------------|--|
| P210           | Keep away from heat.   |
| P220           | Keep/store away from clothing/combustible materials.   |
| P221           | Take any precaution to avoid mixing with combustibles.   |
| P261           | Avoid breathing 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/eye protection/face protection.   |
| P301+P312      | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.   |
| P304+P340      | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                 |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P370+P378      | In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.   |

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 2

### NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 2 Special Hazard: OX

**EYE CONTACT:** May cause slight to mild irritation of the eyes.

**SKIN CONTACT:** May cause slight to mild irritation of the skin.

**INHALATION:** May be irritating to the nose, mucous membranes, and respiratory tract.

**INGESTION:** Ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Ba(NO<sub>3</sub>)<sub>2</sub>

Molecular Weight: 261.35

| CHEMICAL NAME  | CAS#       | %   |
|----------------|------------|-----|
| Barium Nitrate | 10022-31-8 | 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 soap and water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**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.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Product is not flammable

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Barium oxides and nitrogen oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust. Handle under dry protective gas. Substance can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Store away from metal powders, water, moisture, flammable substances, reducing agents, and oxidizing agents. Store under dry inert gas. Hygroscopic.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### EXPOSURE CONTROLS:

| Component      | Exposure Limits       | Basis | Entity |
|----------------|-----------------------|-------|--------|
| Barium Nitrate | 0.5 mg/m <sup>3</sup> | TWA   | NIOSH  |
|                | 0.5 mg/m <sup>3</sup> | TWA   | OSHA   |
|                | 0.5 mg/m <sup>3</sup> | TWA   | ACGIH  |

TWA: Time Weighted Average over 8 hours of work.

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, apron, or lab coat.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**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:** None

**MOLECULAR WEIGHT:** 261.35

**BOILING POINT:** No data available

**MELTING POINT:** 592°C (dec.)

**SPECIFIC GRAVITY:** 3.23 gm/ml

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Soluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperatures.

**INCOMPATIBILITY:** Reducing agents, organic matter, phosphorus, and sulfur.

**DECOMPOSITION PRODUCTS:** Nitrogen oxides and barium oxide

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral –rat - 390 mg/kg. LD50 Oral – Mammal - 390 mg/kg.

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

**MUTAGENIC EFFECTS:** Not available

**TETRATOGENIC EFFECTS:** Not available

**RTECS:** CQ9625000

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

## SECTION 12 ECOLOGICAL DATA

No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

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

## **SECTION 14 TRANSPORTATION DATA**

UN1446

Barium Nitrate

Class 5.1 (6.1)

PG II

Marine Pollutant: No

## **SECTION 15 REGULATORY INFORMATION**

**TSCA:** Listed in the TSCA inventory

**SARA 302/304:** Not listed

**SARA 311/312:** Reactivity Hazard, Acute Health Hazard

**SARA (TITLE 313):** Barium Nitrate

**MASSACHUSETTS RIGHT TO KNOW:** Barium Nitrate

**PENNSYLVANIA RIGHT TO KNOW:** Barium Nitrate

**NEW JERSEY RIGHT TO KNOW:** Barium Nitrate

**CALIFORNIA PROP. 65:** Not Listed

## **SECTION 16 OTHER INFORMATION**

**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.

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