



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Barium Nitrate**
PRODUCT NUMBER: 1204
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

Danger

Hazard Statements

H272	May intensify fire, oxidizer.
H301	Toxic if swallowed.
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: 3 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(NO₃)₂

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.

SECTION 7 HANDLING AND STORAGE (Cont.)

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 ³	TWA	NIOSH
	0.5 mg/m ³	TWA	OSHA
	0.5 mg/m ³	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

VAPOR DENSITY: No data available

SOLUBILITY IN WATER: 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. Avoid moisture. Heat.

INCOMPATIBILITY: Reducing agents, organic matter, phosphorus, and sulfur. Acid bases, acid anhydrides, combustible materials.

DECOMPOSITION PRODUCTS: Nitrogen oxides and barium oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Mammal - 390 mg/kg. LD50 Oral – Rat – 50-300 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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