

# Barium Nitrate

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name: Barium Nitrate  
CAS Number: 10022-31-8  
EC Number: 233-020-5

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: Laboratory chemicals, manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

**Company name:** East Harbour Group Ltd  
20 Clough Road, Severalls Industrial Park  
Colchester, Essex, CO4 9QS  
United Kingdom

**Telephone:** +44 (0) 333 242 0100  
**Email:** [info@eastharbourgroup.com](mailto:info@eastharbourgroup.com)

### 1.4 Emergency telephone number

**Emergency telephone:** 0800 246 1274

## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

Signal word: DANGER

### 2.2 Label elements

Strong oxidiser. Contact with other material may cause a fire. Harmful if inhaled or swallowed. Causes eye, skin and respiratory tract irritation. May cause central nervous system effects. May cause kidney damage. May cause cardiac disturbances.

### 2.3 Other hazards

Target organs: kidneys, central nervous system, muscles, cardiovascular system.

## Section 3: Composition/information on ingredients

# Barium Nitrate

## 3.2 Mixtures

CAS #	Content (W/W)	Ingredients
10022-31-8	100%	Barium Nitrate

Chemical name: Barium Nitrate

Common name / synonyms: Barium Nitrate

## Section 4: First aid measures

### 4.1 Description of first aid measures

In case of skin contact: Flush skin with plenty of water for at least 15 minutes while

In case of eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

If swallowed: Call a poison control centre. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

If inhaled: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

## Section 5: Fire-fighting measures

### 5.1 Fire Fighting Media and Instructions:

Use water spray to cool fire-exposed containers. Contact professional fire-fighters immediately. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires, flood fire area with water from a distance.

### 5.2 Special hazards arising from the substance or mixture

No information available

### 5.3 Advice for firefighters

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire.

## Section 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use proper personal protective equipment as indicated.

### 6.2 Environmental precautions

# Barium Nitrate

Avoid run off into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions

## 6.3 Methods and material for containment and cleaning up

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Chemical Name	ACGIH	NIOSH	OSHA – Final PELs
Barium Nitrate	0.5 mg/m <sup>3</sup> TWA (as Ba) (listed under Barium, soluble compounds)	0.5 mg/m <sup>3</sup> TWA (as Ba) 50 mg/m <sup>3</sup> IDLH (as Ba)	0.5 mg/m <sup>3</sup> TWA (as Ba) (listed under Barium, soluble compounds)

### 8.2 Exposure controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### 8.3 Personal protective equipment

Eye/face protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection: Wear appropriate gloves to prevent skin exposure.

Respiratory protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

# Barium Nitrate

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	White
<b>Physical State</b>	Crystals
<b>Odor</b>	Odourless
<b>Odor Threshold</b>	No information available
<b>pH</b>	5.0-8.0, 5% Aq. Soln.
<b>Melting Point/Range</b>	592 C
<b>Boiling Point/Range</b>	Decomposes
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Explosion Limits</b>	No information available
<b>Vapor Pressure</b>	Negligible
<b>Vapor Density</b>	9.0
<b>Specific Gravity / Density</b>	3.24 @23C
<b>Bulk Density</b>	No information available
<b>Water Solubility</b>	No information available
<b>Solubility in other solvents</b>	Moderate
<b>Partition Coefficient</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	>592 C

## Section 10: Stability and Reactivity

<b>10.1 Reactivity</b>	No information available
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures
<b>10.3 Possibility of hazardous reactions</b>	No information available
<b>10.4 Conditions to avoid</b>	Dust generation
<b>10.5 Incompatible materials</b>	Reducing agents, acids, bases, aluminum, hydroxylamine, magnesium, phosphorus, zinc, esters (e.g. butyl acetate, ethyl acetate, propyl formate), combustible and flammable materials (e.g. alkyl resins, asphalt, gasoline, grease, methyl acetone, polystyrene, polyurethane), acid anhydrides, tin chloride.
<b>10.6 Hazardous decomposition products</b>	Nitrogen oxides, barium oxide

# Barium Nitrate

## Section 11: Toxicological Information

### Product Information

#### 11.1 Toxicological effects:

RTECS:

LD50/LC50:

Draize test, rabbit, eye: 100 mg/24H Moderate

Draize test, rabbit, skin: 500 mg/24H Mild

Oral, mouse: LD50: 266 mg/kg

Oral, rat: LD50: 55 mg/kg

Oral, rat: LD50: 390 mg/kg

No other information available.

## Section 12: Ecological Information

### 12.1 Toxicity

#### Ecotoxicity effects

Ecotoxicity: No information available

Environmental: Terrestrial: Increases the mobility of other elements in the soil. Has a high bioconcentration potential

Physical: No information available

Other: No information available

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

## Section 14: Transport Information

Shipping name: Barium Nitrate. Hazard class: 5.1, Oxidizer, Poison. UN number: UN1446.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

# Barium Nitrate

## Section 15: Regulatory Information

TSCA-listed, EINECS-listed (233-020-5), RCRA D001, D005.

