

## Barium Nitrate

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Barium Nitrate
<b>Other Means of Identification</b>	Barium dinitrate, Barium(II) nitrate (1:2), Nitric acid barium salt
<b>Product Code(s)</b>	BA6210, BA6220
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	Infotrac, 1-800-535-5053, 24 Hours
<b>SDS No.</b>	0670

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Oxidizing solid - Category 1; Acute toxicity (Oral) - Category 3; Acute toxicity (Inhalation) - Category 4; Eye irritation - Category 2B

#### Label Elements



Signal Word:  
Danger

#### Hazard Statement(s):

May intensify fire; oxidizer.  
Harmful if inhaled.  
Causes serious eye irritation.

#### Precautionary Statement(s):

Prevention:  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/protective clothing.  
Wear eye protection/face protection.  
Wash hands and skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.  
Keep or store away from clothing and other combustible materials.

Take any precaution to avoid mixing with combustibles.

Response:

If exposed or concerned: Call a POISON CENTRE or doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

In case of fire: Use carbon dioxide, dry chemical powder, appropriate foam to extinguish.

Storage:

Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### Other Hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Barium nitrate	10022-31-8	> 99	Barium dinitrate, Barium(II) nitrate (1:2), Nitric acid barium salt

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor.

##### Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

##### Ingestion

Do not induce vomiting. Immediately call a Poison Centre or doctor.

##### First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

#### Most Important Symptoms and Effects, Acute and Delayed

None known.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Use flooding quantities of water or other suitable extinguishing agent. Use water to keep non-leaking, fire-exposed containers cool.

Product Identifier: Barium Nitrate

Date of Preparation: August 18, 2016

Page 02 of 06

### Unsuitable Extinguishing Media

DO NOT use carbon dioxide, or other agents that smother the flames.

### Specific Hazards Arising from the Product

Oxidizer. May cause or intensify fire. Heating may cause a fire or explosion. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: corrosive, oxidizing nitrogen oxides.

### Special Protective Equipment and Precautions for Fire-fighters

Oxidizer. Prevent contact with flammable and combustible materials. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid generating dusts. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Prevent accidental contact with flammable and combustible materials.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard). Store in a closed container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Barium nitrate	0.5 mg/m3 A4		Not established			

A4 = Not classifiable as a human carcinogen.

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

No specific guidelines are available. Contact chemical manufacturer/supplier for advice.

## Respiratory Protection

Wear a NIOSH approved particulate respiratory equipped with an N95, R95, or P95 filter, wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s).

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	White crystalline powder.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	5.5 - 7.5 (5% solution)
<b>Melting Point/Freezing Point</b>	592 °C (1098 °F) (melting); 592 °C (1098 °F) (freezing)
<b>Initial Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Will not burn.
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	3.24
<b>Solubility</b>	Moderately soluble in water; Highly soluble in alcohols (e.g. ethanol).
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	0.19 (estimated)
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	630 °C (1166 °F)
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Other Physical Property 1</b>	Above Relative Density measured at 23 deg C.

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Oxidizer. May cause or intensify fire.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Generation of dust. Incompatible materials. High heat.

### Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), acid anhydrides (e.g. acetic anhydride), metals (e.g. aluminum), reducing agents (e.g. hydroquinone), strong reducing agents (e.g. hydrides).

### Hazardous Decomposition Products

Corrosive, oxidizing nitrogen oxides; oxygen (a strong oxidizer).

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Product Identifier: Barium Nitrate  
Date of Preparation: August 18, 2016



Inhalation; skin contact; eye contact; ingestion.

#### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Barium nitrate	Not available	355 mg/kg (rat)	Not available

#### Skin Corrosion/Irritation

Animal tests show mild irritation.

#### Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

No information was located.

##### Ingestion

No information was located.

#### Aspiration Hazard

No information was located.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

#### Respiratory and/or Skin Sensitization

No information was located.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Barium nitrate	Not Listed	Not Listed	Not Listed	Not Listed

#### Reproductive Toxicity

##### Development of Offspring

No information was located.

##### Sexual Function and Fertility

No information was located.

##### Effects on or via Lactation

No information was located.

#### Germ Cell Mutagenicity

No information was located.

#### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
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Product Identifier: Barium Nitrate

Date of Preparation: August 18, 2016

Page 05 of 06

US DOT	UN1446	BARIUM NITRATE	5.1, 6.1	II
Canadian TDG	UN1446	BARIUM NITRATE	5.1, 6.1	II

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

Listed on the DSL.

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

**Date of Preparation** August 18, 2016

**Date of Last Revision** August 18, 2016

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.