

Safety Data Sheet

BARIUM NITRATE

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: BARIUM NITRATE
Recommended Use: Science education applications
Synonyms: Barium Dinitrate; Nitric Acid, Barium Salt
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



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

GHS Classification:

Oxidizing Solid Category 2, Serious Eye Damage/Eye Irritation Category 2A, Skin Corrosion/Irritation Category 3, Acute Toxicity - Inhalation Vapor Category 4, Acute Toxicity - Oral Category 4

Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Barium Nitrate | 10022-31-8 | 100 |

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media: Water spray. Use dry chemical, CO₂ or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Explosive when mixed with oxidising substances.
Hazardous Combustion Products: Nitrogen oxides

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Avoid the generation of dusts during clean-up. Avoid breathing dust/fume/gas/mist/vapors/spray. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away.

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Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Vacuum or sweep up material and place in a disposal container

Section 7

Handling and Storage

Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep/Store away from clothing/.../combustible materials. Take any precaution to avoid mixing with combustibles. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from oxidizing materials and strong acids. Keep container tightly closed in a cool, well-ventilated place. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution. Keep away from combustible material. Avoid contact with skin and eyes. Avoid contact with clothing. After contact with skin, wash immediately with plenty of water.

Storage: Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Yellow - Reactive. Store separate and away from incompatible material.

Section 8

Protection Information

| <u>Chemical Name</u> | <u>ACGIH</u> | <u>OSHA PEL</u> |
|----------------------|-----------------------|-----------------------|
| | (TWA) | (TWA) |
| Barium Nitrate | 0.5 mg/m3 TWA (as Ba) | 0.5 mg/m3 TWA (as Ba) |
| | (STEL) | (STEL) |
| | N/A | N/A |

Control Parameters

Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Respirator Type(s):

NIOSH approved air purifying respirator with dust/mist filter.

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly.

Gloves:

Nitrile

Section 9

Physical Data

Formula: Ba(NO₃)₂
Molecular Weight: 261.37
Appearance: Solid
Odor: No data available
Odor Threshold: No data available
pH: No data available
Melting Point: No data available
Boiling Point: No data available
Flash Point: No data available
Flammable Limits in Air: N/A

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 3.24 at 23 °C
Solubility in Water: Slightly Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: N/A

Section 10

Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Exposure to moisture Sparks, open flame, other ignition sources, and elevated temperatures.

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Incompatible Materials: Acetic anhydride, Acids, Caustics (bases), Strong reducing agents
Hazardous Decomposition Products: Nitrogen oxides
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: N/A
Symptoms (Acute): None Known
Delayed Effects: No data available

Acute Toxicity:

| Chemical Name | CAS Number | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------|------------|---|----------------|-----------------|
| Barium Nitrate | 10022-31-8 | Oral LD50 Rat 390 mg/kg Oral LD50 MAMMAL 390 mg/kg | Not determined | Not determined |

Carcinogenicity:

| Chemical Name | CAS Number | IARC | NTP | OSHA |
|----------------|------------|--------|------------|------------|
| Barium Nitrate | 10022-31-8 | Listed | Not listed | Not listed |

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: No ecological information available Keep out of waterways.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

| Chemical Name | CAS Number | Eco Toxicity |
|---------------|------------|--------------|
| N/A | 10022-31-8 | |

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

| Ground - DOT Proper Shipping Name: | Air - IATA Proper Shipping Name: |
|------------------------------------|---|
| UN1446, Barium Nitrate, 5.1, II | UN number: 1446 Class: 5.1 (6.1) Packing group: II Proper shipping name: Barium nitrate |

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

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| Chemical Name | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) TQ |
|-------------------|------------|------------|----------|-----------|-----------|---------------|
| No data available | 10022-31-8 | No | No | No | No | No |

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

| | | | |
|--------|---|------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service Number | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL | Permissible Exposure Limit |
| DOT | U.S. Department of Transportation | ppm | Parts per million |
| IARC | International Agency for Research on Cancer | RCRA | Resource Conservation and Recovery Act |
| N/A | Not Available | SARA | Superfund Amendments and Reauthorization Act |
| | | TLV | Threshold Limit Value |
| | | TSCA | Toxic Substances Control Act |
| | | IDLH | Immediately dangerous to life and health |