Barium Nitrate
Safety Data Sheet

1. Product and Company

Product name: Barium Nitrate
Synonym: Barium (II) Nitrate, Barium Dinitrate, Nitrobarite
CAS-No.: 10022-31-8
Company: Hummel Croton Inc.
10 Harmich Rd.
South Plainfield, NJ 07080
Telephone: 908-754-1800
Fax: 908-754-1815

Emergency telephone number

Emergency Phone #: Chemtrec US: 1-800-424-9300
ChemTel International: +1-813-248-0585

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>3</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>E</td>
</tr>
</tbody>
</table>

2. Hazards

GHS Classification
Oxidizing solids (Category 2), H272
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Eye irritation (Category 2A), H319

GHS Label elements

Pictogram(s) ![Exclamation mark](⚠) ![Flame](🔥)
Signal word **DANGER**
Hazard statement(s)
H272 May intensify fire, oxidizer.
H301 Toxic if swallowed.
H319 Causes serious eye irritation

Precautionary statement(s)

P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combusibles.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ 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/ eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

None.

3. Composition/Ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>Formula:</th>
<th>Molecular weight:</th>
<th>CAS-No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium Nitrate</td>
<td>Ba(NO₃)₂</td>
<td>261.34 g/mol</td>
<td>10022-31-8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS</th>
<th>%</th>
<th>OSHA</th>
<th>ACGIH</th>
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</thead>
<tbody>
<tr>
<td>Barium Nitrate</td>
<td>10022-31-8</td>
<td>100%</td>
<td>0.5 mg/m³ as Ba</td>
<td>0.5 mg/m³ as Ba</td>
</tr>
</tbody>
</table>

4. First Aid

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
**First Aid For Ingestion:** If swallowed, call a physician immediately.

5. Fire Data

- **Flammability:** Non-Flammable
- **Flash Point:** Not Applicable
- **Auto Ignition:** Not Applicable
- **Flammable Limits:** Not Applicable
- **Extinguishing Media:** Water

**Fire Fighting Procedure:** Firefighters should wear full protective clothing and self-contained breathing apparatus. Use water spray from a safe distance to cool fire exposed containers. This material is an oxidizing agent and can result in vigorous reactions with reducing agents increasing the flammability of adjacent combustible materials in a fire situation.

**Fire/Explosion Hazards:** Material is an oxidizer. Mixtures of nitrates and organic materials can be explosive under fire conditions.

6. Accidental Release

**Spill Or Leak Procedures:** Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.

7. Handling And Storage

- **Storage Temperatures:** Store at ambient temperature
- **Shelf Life:** Unlimited in tightly sealed container
- **Special Sensitivity:** None.

**Handling/Storage Precautions:** Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers immediately after use. Store away from food and beverages.

8. Exposure Controls/Personal Protection

- **Eye Protection:** Safety glasses or goggles.
- **Skin Protection:** PVC gloves with impervious boots, apron or coveralls. Wash hands and face before eating, drinking or using tobacco.
- **Respirator:** Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.
- **Ventilation:** Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

**Additional Measures:** Emergency showers and eye wash stations should be available. Educate and train employees in the safe handling of hazardous chemicals.

9. Physical And Chemical Properties

- **Physical Form:** Crystals
- **Color:** White
- **Odor:** Odorless
- **Molecular Weight:** 261.34
Boiling Point: Decomposes above 590°C (1098°F)
Melting/Freezing Point: Decomposes above 590°C (1098°F)
Solubility In Water: 9.2 g/100mL @20°C
Specific Gravity: 3.24

10. Stability And Reactivity

Stability: Stable.
Hazardous Polymerization: Will not occur.
Incompatibilities: Reducing agents, organic compounds and combustible materials.
Instable Conditions: Excessive temperatures (see incompatibilities).
Decomposition Temperature: Decomposes above 590°C (1098°F)
Decomposition Products: Oxides of barium and nitrogen.

11. Toxicological Information

RTECS Number: CQ9625000
Routes Of Exposure: Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data: LD50 Oral-Rat 355 mg/kg
Chronic Toxic Effects: Repeated or prolonged ingestion of barium nitrate may cause anemia and possibility of methemoglobinemia (cyanosis-decreased ability of red blood cells to transport oxygen) under special circumstances when nitrate-reducing bacteria in the stomach convert the nitrate to the more toxic nitrite. Symptoms may include nausea, vomiting, dizziness, irregular heartbeat and breathing, convulsions, coma and possible death. Nitrites may cause adverse kidney effects.
Acute Toxic Effects: Ingestion may cause gastroenteritis (inflammation of the lining membrane of the stomach and intestines) with abdominal pain, nausea, vomiting and diarrhea. Systemic effects may follow and may include ringing of the ears dizziness, elevated blood pressure, blurred vision and tremors.

12. Ecological Information

Ecotoxicity: Not available at this time.

13. Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

14. Transportation Information

Proper Shipping Name: Barium Nitrate
UN Number: 1446
Class: 5.1
P.G.: II
Label Code: 5.1(6.1)

15. Regulatory Information
OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Chemical Inventory: This compound is on the EPA Toxic Substance Control Act (TSCA) Inventory List

California Proposition 65: To the best of our knowledge, this product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive effects.

SARA 313 Title III:
- Section 320 Extremely Hazardous Substances: None
- Section 311/312 Hazardous Categories: None
- Section 313 Toxic Chemicals: This product may be subject to reporting. (Barium content 52.55%)

16. Other Information

Prepared By: Michael Richard
Date: March 20, 2018
Reason For Issue: Emergency Contact Update

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