

# United Nuclear

Scientific Equipment & Supplies

## Material Safety Data Sheet

### Barium Chlorate

In case of Emergency Call:  
VelocityEHS  
(800) 255-3924

#### Section I. Chemical Product and Company Identification

**Supplier:**

United Nuclear  
125 N. 8th Street  
Klamath Falls, OR 97601  
541-205-6855

**Chemical Name:** Barium Chlorate  
**Synonym:** Chloric Acid Barium Salt  
**CAS Number:** 13477-00-4  
**Chemical Formula:** Ba(ClO<sub>3</sub>)<sub>2</sub>·H<sub>2</sub>O

**HMIS Rating**

Health	3
Flammability	0
Reactivity	3
Personal Protection	E

#### Section II. Composition and Information on Ingredients

Material	CAS#	OSHA	ACGIH	
Barium Chlorate	13477-00-4	100%	0.5mg/m <sup>3</sup> as Ba	0.5mg/m <sup>3</sup> as Ba

#### Section III Hazards Identification:

**Acute Health Effects:** Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

**Chronic Health Effects:** This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

**Acute Health Effects:** This product is not listed by NTP, IARC or regulated as a Carcinogen by OSHA.

#### Section IV. First Aid Measures

**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.

#### Section V. Fire and Explosion Data

**Flammability:** Non-Flammable

**Flash Points:** Not Applicable

**Auto-Ignition:** Not Applicable

**Flammable Limits:** Not Applicable

**Extinguishing Media:** Water Spray

**Fire Fighting Procedure:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Strong oxidizer.

**Fire/Explosion Hazards:** Emits toxic fumes under fire conditions.

#### Section VI. Accidental Release Measures

**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

#### Section VII. Handling and Storage

**Storage Temperatures:** Store at ambient temperature

**Shelf Life:** Unlimited in tightly closed 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 (see Section X). Reseal containers immediately after use. Store away from food and beverages.

#### Section VIII. Exposure Controls/Personal Protection

**Eye Protection:** Safety glasses or goggles.

**Skin Protection:** PVC gloves with impervious boots, apron or coveralls. Employees should wash their hands and face before eating, drinking or using tobacco products.

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

## Section IX. Physical and Chemical Properties

**Physical Form:** Crystals

**Color:** White

**Odor:** Odorless

**Molecular Weight:** 322.29

**Boiling Point:** Not Applicable

**Melting/Freezing Point:** -H<sub>2</sub>O @120°C, Anhydrous material Dec. at 414°C

**Solubility In Water:** 27.4 g/100ml @25°C

**Specific Gravity:** 3.18g/ml

## Section X. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will Not occur

**Incompatibilities:** Strong Acids, Reducing Agents, Finely Powdered Metals, Aluminum & excessive heat

**Instable Conditions:** Excessive temperatures (see Incompatibilities).

**Decomposition Temperature:** -H<sub>2</sub>O @120°C, Anhydrous material Dec. at 414°C

**Decomposition products:** Oxygen, Hydrogen Chloride gas and Oxides of Barium

## Section XI. Toxicological Infomation

**RTECS Number:** FN9770000

**Routes of Exposure:** Eye contact. Ingestion. Inhalation. Skin contact.

**Toxicity Data:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Chronic Toxic Effects:** This product has no known chronic effects. Repeated or prolong exposure to this compound is not known to aggravate medical conditions.

**Acute Toxic Effects:** Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

## Section XII. Ecological Information

**Ecotoxicity:** Not available at this time.

## Section XIII. Disposal Considerations

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

## Section XIV. Transportation Information

**Proper Shipping Name:** Barium Chlorate, Solid

**UN Number:** 1445

**Class:** 5.1

**P.G.:** II

**Label Code:** 5.1(6.1)

## Section XV. 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 302 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%).

## Section XVI. Other Information

**Prepared By:** Tom Ridell

**Date:** May 5, 2009

**Reason For Issue:** Updated Format

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