

**Material Safety Data Sheet
Barium Carbonate**

Suppliers Name: Westco Chemicals, Inc.

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1. Identification

Product Name: Barium Carbonate

Chemical Name: Barium Carbonate

Formula: BaCO₃

Molecular Weight: 197.35

CAS No.: 513-77-9

2. Composition / Information on Ingredients

Chemical Name: Barium Carbonate

CAS #: 513-77-9

ACGIH TLV: 0.5 mg/m³ for soluble Barium compounds as Barium (0.74 mg/m³ as BaCO₃).
(1992-1993)

3. Hazard Identification

Route of Exposure: Ingestion, Inhalation, Skin or Eye

Skin: Barium is not likely to penetrate intact skin; penetration through cuts may cause symptoms of over-exposure. A slight irritation may result from the alkaline nature of the product.

Eye: Particles in the eye may cause pain, tearing and irritation.

4. First Aid Measures

Inhalation: Flush mouth and nasal passages with water. Have victim drink solution of 1 Tablespoon of Epsom Salt (Magnesium Sulfate) or Glauber's Sulfate (Sodium Sulfate) dissolved in water. Call for medical attention.

Eyes: Flush eyes with water until irritation subsides. Get medical attention if necessary.

Skin: Wash with water and soap is available. Remove contaminated clothing and wash before re-use.

Ingestion: Have victim drink solution of 1 Tablespoon of Epsom Salt (Magnesium Sulfate) or Glauber's Sulfate (Sodium Sulfate) dissolved in water. Induce vomiting if victim is completely conscious. Call for medical attention.

Regulatory / Carcinogenicity: Barium carbonate is not considered carcinogenic (1993 study of Barium Chloride showed no evidence).

Medical Conditions Aggravated by Exposure: Acute over-exposure will cause severe abdominal pain, violent purging with watery bloody stools, vomiting, muscle twitching and confusion, followed by muscle paralysis of the respiratory muscles, which may be fatal.

5. Fire Fighting Measures

Common Extinguishing Methods: Foam or Water

Inappropriate Extinguishing Methods: NA

Specific Hazards: Will decompose releasing Carbon Dioxide gas at extremely high temperatures.

Protective Measures in case of Intervention: NA

Other Precautions: Limit water runoff if it is likely to contain suspended product.

6. Accidental Release Measures

Try to keep material dry. Prevent runoff from entering sewers or ditches connected with natural waterways. Dispose of appropriately in compliance with local, state and federal laws and regulations.

7. Handling and Storage

General storage conditions are not critical. Keep material dry. Store separate from acids. Emptied containers may present a toxic hazard. Treat or dispose of empty containers in compliance with local, state and federal laws and regulations.

8. Exposure Controls / Personal Protection

Engineering Controls: Control airborne concentrations below the exposure limit. Use only with adequate ventilation.

Respiratory Protection: Use NIOSH approved dust mask.

Hand Protection: Wear impervious gloves.

Eye Protection: Wear safety glasses. Use chemical goggles if excessive dust is present.

Skin Protection: Cover exposed skin areas.

9. Physical and Chemical Properties

Appearance: Solid, white powder or granules

Odor: Usually odorless

pH: 9 (measures in a 1% suspension in water)

Boiling Point / Range : NA

Melting Point / Range: 1400 °C (2552°F) - near decomposition temperature.

Flash Point: NA

Flammability: NA

Lower Limit: NA

Upper Limit: NA

Autoignition Temperature: NA

Danger of Explosion: NA

Combustible Characteristics: NA

Vapor Pressure: NA

Vapor Density (air=1): 4.3

Specific Gravity (H₂O=1): NA

Solubility:

Water Solubility: 0.02g/l

(Barium Chloride BaCl₂ 375 g/l)

(Barium Sulfate BaSO₄ 0.002 g/l)

Viscosity: NA

Decomposition Temperature: See Melting Point / Range

Partition Coefficient p (n-octanol/water): NA

Other Data: NA

10. Stability and Reactivity

Stability: Stable under normal conditions

Conditions to Avoid: Heat

Materials to Avoid: Acids

Hazardous Decomposition Products: Carbon dioxide, soluble Barium salts

11. Toxicological Information

Acute Toxicity:

LD50-oral (rat): 630 mg/kg

Chronic Toxicity: Chronic over-exposure may lead to varying degrees of paralysis of the extremities. A condition known as "Bartosis" will be observed (x-ray of lungs will be influenced). Symptoms of over-exposure will disappear with time as the body eliminates Barium.

12. Disposal Considerations

Waste and Packaging Treatment: Dispose of in compliance with local, state and federal laws and regulations.

13. Transport

UN No.: 1564

DOT Classification

DOT Proper Shipping Name: Barium compounds, n.o.s.

Labels Required: 6.1 (toxic)

Packing Group: PGIII

Hazard Class: NA

14. Regulatory Information

Authorized Limit Values:

TLV (ACGIH) - TWA: 0.5 mg/m³ for soluble Barium compounds; Barium carbonate is not listed.

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