

Safety Data Sheet

#### **Section 1: Identification**

Trade Name: Barium Carbonate Synonyms: Precipitated Barium Carbonate, Carbonic Acid, Barium salt Company: Soapgoods Inc Address: 1824 Willow Trail Pkwy, Ste 200. Norcross. GA 30093 Phone: (404) 924-9080 E-Mail: wecare@soapgoods.com Emergency Phone: Chemtrec 1 800 424 9300

## Section 2: Hazard(s) Identification

Acute toxicity, Oral (Category 4), H302 WAR N I N G H A RM F U L I F SWA L L OW E D H A R M F U L I F I N H A L E D MAY CAUSE EYE AND SKIN IRRITATION Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection. Use with adequate ventilation or wear a dust mask if excessive dust is present. Wash hands and face thoroughly after handling. Dispose of contents/container in accordance with local, state and federal regulations.

## Section 3: Composition/Information on Ingredients

COMPONENT	CAS #	EXPOSURE LIMITS	% BY WT
Barium Carbonate	513-77-9	OSHA PEL: 0.5 mg/cu m as E	Ba ca 97.0
		0.74 mg/cu m as This Produc	t
		ACGIH TLV-TWA: Same	

#### Section 4: First-Aid Measures

If medical attention is sought, show this safety data sheet to the doctor in attendance.

## If swallowed

Induce vomiting immediately, as directed by medical personnel. Give Epsom salts (magnesium sulfate) or Glauber's Salt (sodium sulfate) dissolved in water. Get medical attention immediately and contact a poison control center.

Never give anything by mouth to an unconscious person.

If inhaled Move victim into fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

In case of skin contact Wash off with soap and plenty of water. Wash contaminated clothing before reuse.

In case of eye contact Flush eyes with water as a precaution with large amounts of water for at least 15 minutes and get medical attention if irritation persists.

Most important symptoms and effects, both acute and delayed Ingestion causes stomach pain, vomiting, and diarrhea. Muscle stimulation followed by transient paralysis may initiate hours after ingestion.

Acute overexposure will cause severe abdominal pain, violent purging with watery and bloody stools, vomiting, muscle twitching, hypertension, and confusion, followed by transient muscle paralysis including potentially fatal paralysis of the respiratory muscles. Barium is eliminated from the body over several days. Chronic overexposure may lead to varying degrees of paralysis of the extremities; hypertension may also be present. Symptoms of overexposure will disappear over several days as the body eliminates barium in the feces.

Hypokalemia is usually present in cases of overexposure; potassium should be administered - large doses may be required. Physician: Administer potassium intravenously to counteract the effect of barium.

## Section 5: Fire-Fighting Measures

Flashpoint : Non-Flammable. Flammability : Non-Flammable. Autoignition : Non-Flammable.

General Hazard : No fire hazard. Will decompose releasing carbon dioxide gas at extremely high temperatures. This product is toxic if ingested.

Fire Fighting Instructions : Limit water runoff if it is likely to contain suspended barium carbonate. Add soluble sulfate such as sodium sulfate to the water to make it nonhazardous.

Fire Fighting Equipment : No special equipment is required. Wash away any barium carbonate which may contact the body, clothing, or equipment.

Hazardous Combustion Products : None

## **Section 6: Accidental Release Measures**

General: Avoid generating dust. Use appropriate Personnel Protective Equipment (PPE). Spilled product could be a RCRA D005 characteristic hazardous waste because of its soluble barium content. Waste containing more than 0.2% soluble barium is hazardous under the RCRA criteria. Do not dump into sewers, on the ground, or into any body of water. Soluble barium can be rendered nonhazardous by reaction with excess sulfate to form insoluble barium sulfate. Any disposal practice must be in compliance with local, state, and federal laws and regulations. (Contact local or state environmental agency for specific rules).

Small Spill: Carefully shovel up or sweep up spilled material and place in suitable container.

Large Spill: Try to keep material dry and prevent material from entering storm sewers or ditches leading to natural waterways. Mix with excess sulfate to make the material nonhazardous, or dispose of material in an approved hazardous waste landfill.

## Section 7: Handling and Storage

Storage Temperature : Ambient.

Storage Pressure : Ambient.

General : This product is not water-soluble, but is soluble in most acids. Keep this material dry. Keep containers closed. Emptied containers may present a toxic hazard; treat or dispose of appropriately.

## Section 8: Exposure Controls/Personal Protection

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

Respiratory Protection: Use a NIOSH-approved dust mask if excessive dust is present. Skin Protection: Cover exposed skin areas and wear general-purpose gloves. Eye Protection: Wear safety glasses. Use chemical goggles if excessive dust is present.

## **Section 9: Physical and Chemical Properties**

Physical State: Solid. Vapor Pressure: Not applicable.

Specific Gravity: 3.1 Solubility in Water: Insoluble. pH: 1% suspension in water has a pH of 9

Boiling Point: Decomposes to barium oxide and carbon dioxide at about 1000 Degrees C. Melting Point: About 1000 Degrees C. - Near decomposition temperature.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable. Odor: Usually odorless; possibly a very slight rotten-egg odor. Appearance: White powder or granules.

# Section 10: Stability and Reactivity

Chemical Stability: Keep away from intense heat which may cause decomposition. Keep away from acids which will cause decomposition and generate carbon dioxide gas. Incompatibility: Acids will decompose barium carbonate with the liberation of carbon dioxide.

Hazardous Decomposition Products: Barium carbonate may be decomposed to release carbon dioxide gas which is hazardous in confined spaces. Soluble barium compounds which may be produced by dissolution of barium carbonate in acid are toxic if ingested. Hazardous Polymerization: Does not occur.

# Section 11: Toxicological Information

Skin: Contact may be slightly irritating. Barium ion is not expected to pass through intact skin.

Eye: The dust is expected to be slightly to moderately irritating.

Ingestion: The Oral LD50 for rats is about 400 mg/kg of barium chloride (equal to about 379 mg/kg of

barium carbonate). A National Toxicology Program study found no decrease in two-year survival for rats consuming 110 mg/kg/day of barium chloride for the entire two year period (lifetime exposure).

Inhalation: No studies. Inhaled dust is expected to exhibit the same systemic toxicity as ingestion because barium carbonate is cleared from the lungs into the bloodstream.

Sub-chronic: Rats and mice exposed to 1,250 ppm of barium chloride dihydrate in their drinking water continuously for two years showed no adverse effects.

Chronic Ingestion: Kidney effects were observed in rats and mice after prolonged exposure to high levels of soluble barium.

Chronic/Carcinogenic: Rats and mice exposed to 2500 ppm of barium chloride dihydrate in drinking water for two years showed no evidence of carcinogenic response.

Teratogenic: Rats exposed to 2000 ppm of barium chloride dihydrate in their drinking water for thirty days exhibited no teratogenic effects, and no fetotoxicity was noted.

Reproductive: No effects were seen on reproductive indices in a mating trial after male rats were exposed to 2000 ppm of barium chloride dihydrate in their drinking water for sixty days and female rats were exposed to 2000 ppm in their drinking water for thirty days.

Mutagenic: Barium chloride dihydrate was not mutagenic in Salmonella typhimurium strains TA 100, TA 1535, TA 1537, TA 97, or TA 98, with or without exogenous metabolic activation (S9). See NTP Technical Report No. 432.

## Section 12: Ecological Information

TOXICITY: In turbid water at 20 Deg. C, the 96 hour TLM has been reported as 10,000 mg/l for Mosquito Fish (Gambusia Affinis). This would have been suspended rather than dissolved barium carbonate.

DISTRIBUTION: Barium carbonate is not water soluble and occurs in nature as the mineral Witherite. It reacts with sulfate ions in the environment to form barium sulfate. No appreciable bioconcentration is expected in the environment because barium sulfate is naturally present in almost all rocks and soils.

CHEMICAL FATE: Barium carbonate is expected to react with sulfate in the environment to form inert and nontoxic barium sulfate.

#### Section 13: Disposal Considerations

Waste containing more than 0.2% soluble barium is hazardous under the RCRA criteria. If disposed of in its purchased form, this product would be a hazardous waste based on barium solubility in the RCRA TCLP test. Barium compounds can be rendered non-hazardous by reaction with excess sulfate to form insoluble barium sulfate. Any disposal practice must be in compliance with local, state, and federal laws and regulations.

## Section 14: Transport Information

D.O.T. Shipping Name : Not Regul	ated by U.S. DOT
as a hazardous material.	
Technical Shipping Name	: Barium Compound.
D.O.T. Hazard Class	: None.
U.N./N.A. Number	: None.
Product R.Q. (lbs)	: None.
D.O.T. Label	: None.
D.O.T. Placard	: : None.
Freight Class Bulk	: Inorganic Chemical.
Freight Class Package	: Inorganic Chemical.
Product Label	Barium Carbonate, Precipitated
	Type FF, Type CFF, AQUA-FLO,
	MICRO-FLO

## Section 15: Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal		
OSHA Hazard Communication Standard, 29 CFR 1910.1200. It is classified a		
toxic based on the oral rat LD50.		
TSCA Status: Listed on TSCA Inventory		
CERCLA Reportable Quantity : None.		
SARA Title III:		
Section 302, Extremely Hazardous Substances : None.		
Section 311/312, Hazard Categories : Category 1 (Acute Hazard).		
Section 313, Toxics Release Inventory: Barium Compounds, Code N040.		

RCRA Status: If discarded in its purchased form, this product would be a hazardous waste by characteristic. Under RCRA, it is the responsibility of the product user to determine, at the time of disposal, whether a waste containing the

product, or derived from the product, should be classified as a hazardous waste under 40 CFR 261.20-24.

#### Section 16: Other Information

National Fire Protect ion Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the

NFPA system.

Health: 2

Flammability: 0

Reactivity: 0

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