

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1" style="margin: auto;"> <tr><td style="background-color: #00FFFF;">Health Hazard</td><td style="text-align: center; border: 1px solid black;">2</td></tr> <tr><td style="background-color: #FFCCCC;">Fire Hazard</td><td style="text-align: center; border: 1px solid black;">0</td></tr> <tr><td style="background-color: #FFFF00;">Reactivity</td><td style="text-align: center; border: 1px solid black;">0</td></tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	 See Section 15.
Health Hazard	2							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Barium Hydroxide	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
Commercial Name(s)	Not available.	
Synonym	Barium dihydroxide	
Chemical Name	Barium Hydroxide	
Chemical Family	Not available.	
Chemical Formula	Ba(OH) ₂	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
	Catalog Number(s)	B1008
	CAS#	17194-00-2
	RTECS	CQ9200000
	TSCA	TSCA 8(b) inventory: Barium Hydroxide
	CI#	Not available.
<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000		

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Barium Hydroxide	17194-00-2				100
Toxicological Data on Ingredients					
Barium Hydroxide: ORAL (LD50): Acute: 308 mg/kg [Mammal].					

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Powdered solid.)	Odor	Odorless.
Molecular Weight	171.35 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	White.
Boiling Point	Not available.		
Melting Point	408°C (766.4F)		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	10.9 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol.		
Solubility	Partially soluble in cold water, methanol. Insoluble in acetone. Readily soluble in dilute acids. Slightly soluble in ethanol.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, metals, acids

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Corrosivity	Not available.
Special Remarks on Reactivity	Mixtures of Barium Hydroxide and chlorinated rubber with or without hydrocarbon or chlorinated solvents may react violently or explosively when heated at about 216 C.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 308 mg/kg [Mammal].
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Causes respiratory tract irritation. Ingestion: Causes abdominal pain nausea, vomiting, increased salivation, diarrhea, severe digestive/gastrointestinal tract irritation. May affect behavior/central nervous system/nervous system (muscle weakness, incoordination, muscle twitching, giddiness, dizziness, vertigo, somnolence, convulsions, parasympathomimetic reaction), cardiovascular system (hypertension, ventricular contractions, tachycardia or bradycardia, ventricular fibrillation), respiration (labored breathing), kidneys. May also cause tightness of the muscles of the face and neck.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport Not applicable.

DOT (Pictograms)

**Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations

Pennsylvania RTK: Barium Hydroxide (Listed as Barium compounds)
 New Jersey: Barium Hydroxide (Listed as Barium compounds)
 New Jersey spill list: Barium Hydroxide (Listed as Barium compounds)
 Louisiana spill reporting: Barium Hydroxide (Listed as Barium compounds)
 TSCA 8(b) inventory: Barium Hydroxide
 SARA 313 toxic chemical notification and release reporting: Barium Hydroxide (Listed as Barium compounds)

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 241-234-5).
 Canada: Listed on Canadian Domestic Substance List (DSL).
 China: Not listed on National Inventory.
 Japan: Listed on National Inventory (ENCS).
 Korea: Listed on National Inventory (KECI).
 Philippines: Listed on National Inventory (PICCS).
 Australia: Listed on AICS.

Other Classifications

WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
 CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC) R22- Harmful if swallowed. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 R36/37/38- Irritating to eyes, respiratory system and skin. S37- Wear suitable gloves.
 S46- If swallowed, seek medical advice immediately and show this container or label.

HMS (U.S.A.)

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health	2	0	0	Flammability
				Reactivity
				Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



**TDG (Canada)
(Pictograms)**



**ADR (Europe)
(Pictograms)**



Protective Equipment



Gloves



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

MSDS Code B0661

References Not available.

Other Special Considerations

Major Uses: In manufacture of alkali, glass; in synthetic rubber vulcanizaton; in corrosion inhibitors; in drilling fluids; in pesticides, insecticides, fungicides; boiler scale remedy; in refining animal and vegetable oils; in softening water; in fresco painting; in the manufacture of barium soaps; in refining of beet sugar; a dehairing agent; catalyst in manufacture of phenol-formaldehyde resins; in ceramics; in the manufacture of oil and grease additives; in organic preparations; barium salts; analytical chemistry; in paper making additives; in sealing compounds; pigment dispersants and self-extinguishing polyurethane foams; to protect limestone items from deterioration; in Lubricating oils.

Validated by Sonia Owen on 2/13/2009.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.