

MATERIAL SAFETY DATA SHEET

Barium Hydroxide

SECTION 1 . Product and Company Identification

Product Name and Synonym: Barium Hydroxide
Product Code: B0569
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 5/28/2013
Print Date: 5/28/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	2
Flammability:	0
Reactivity:	0
Hazard Rating: Least Slight Moderate High Extreme 0 1 2 3 4 NA=Not Applicable NE=Not Established	

SECTION 2 HAZARD IDENTIFICATION

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Solid. [Crystals]
Odor: Odorless.
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview:
DANGER!
MAY BE FATAL IF INHALED OR SWALLOWED.
CAUSES SEVERE RESPIRATORY TRACT, EYE AND SKIN BURNS
HARMFUL IF
ABSORBED THROUGH THE SKIN
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: HEART, CENTRAL NERVOUS SYSTEM

Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Keep container closed. Use only adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Corrosive to eyes. Dust may cause mechanical irritation to eyes.
Skin: Toxic in contact with skin. Corrosive to the skin.
Inhalation: Very toxic by inhalation. Corrosive to respiratory system.
Ingestion: Very toxic if swallowed. May cause burns to mouth, throat and stomach.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.

Medical conditions aggravated by over-exposure:
Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage.
Repeated or prolonged exposure to the substance can produce target organs damage.
Repeated exposure of the eyes to a low level of dust can produce eye irritation.

SECTION 3 MIXTURE COMPONENTS

Barium Hydroxide

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Barium Hydroxide	CAS# 12230-71-6	100%	W/W	OSHA PEL 0.5 mg/mf as Ba

SECTION 4 FIRST AID MEASURES

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Fire / Explosion Hazards: None Known.

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

SECTION 6 ACCIDENTAL RELEASE MEASURES

Wear Protective equipment. Sweep up, place in a bag and hold for waste disposal. Flush area with water

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: If emergency personnel are unavailable, vacuum or carefully scoop up material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

SECTION 7 HANDLING AND STORAGE

Keep container tightly closed. Store in secure poison area

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: NIOSH Approved Gloves

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Barium Hydroxide

Barium Hydroxide, Octahydrate

ACGIH TLV (United States, 1/2006). Notes: as Ba 1996 Adoption Refers to Appendix A – Carcinogens.

TWA: 0.5 mg/m³ 8 hour(s)

OSHA PEL (United States, 8/1997). Notes: as Ba

TWA: 0.5 mg/m³ 8hour(s)

OSHA PEL 1989 (United States, 3/1989). Notes: as Ba

TWA: 0.5 mg/m³ 8 hour(s)

Consult local authorities for acceptable exposure limits.

Engineering measurers: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended:

face shield

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended: lab coat and gloves

Feet: Recommended: boots.

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Recommended:

Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Vapor respirator or self-contained breathing apparatus (SCBA).

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	-78° C	Percent Volatile by Volume:	N/A
Boiling Point:	N/A	Evaporation Rate	N/A
Vapor Pressure:	N/A	Evaporation Standard	
Vapor Density:	N/A	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	White to transparent crystal	Upper Flamm. Limit in Air	Not applicable

Barium Hydroxide

Flash Point: N/A
Specific Gravity: 2.18

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable
Conditions to Avoid: Avoid contact with incompatible materials.
Materials to Avoid: Acidic conditions
Hazardous Decomposition Products: Not known to occur
Hazardous polymerization: Will Not Occur
Conditions to Avoid: None known

SECTION 11 Toxicological Information

Chronic effects on humans: CARCINOGENIC EFFECTS: Classified A4. (Not classifiable for humans or animals.) by ACGIH

Contains material which causes damage to the following organs: heart, central nervous system (CNS)

Other toxic effects on humans:
Extremely hazardous in case of ingestion
Very hazardous in case of skin contact (permeator).
of inhalation (lung irritant)

Specific effects
Carcinogenic effects: : No known significant effects or critical hazards
Mutagenic effects: No known significant effects or critical hazards
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

Sensitization
Ingestion: May cause burns to mouth, throat and stomach.
Inhalation: Corrosive to respiratory system.
Eyes: Corrosive to eyes. Dust may cause mechanical irritation to eyes.
Skin: Corrosive to the skin

SECTION 12 Ecological Information

Environmental effects : No known significant effects or critical hazards.
Products of degradation:
Some metallic oxides.
Toxicity of the products of biodegradation: The products of degradation are less toxic than the product itself.

SECTION 13 Disposal Considerations

Waste disposal: the generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

RCRA classification: Code: (C)

SECTION 14 Transport Information

DOT Classification: Barium Compounds, n.o.s. (Barium Hydroxide), 6.1, UN1564, PG III

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

Barium Hydroxide

HCS Classification:
Target organ effects
Corrosive material
Highly toxic material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Barium Hydroxide, Octahydrate
Immediate (acute) health hazard,
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.
State regulations:
Pennsylvania RTK: Barium Hydroxide, Octahydrate
(environmental hazard, generic environmental hazard)
New Jersey: Barium Hydroxide, Octahydrate

Canada
WHMIS (Canada) :
Class D-1B: Material causing immediate and serious toxic effects (Toxic)
Class E: Corrosive material
CEPA DSL/ CEPA NDSL : CEPA DSL:
No products were found

SECTION 16

Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

0.1

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