

# Safety Data Sheet

## Barium Hydroxide, 8-Hydrate

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Barium Hydroxide, 8-Hydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Barium Hydroxide, Octahydrate  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage.

**GHS Classification:**

Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity - Inhalation Vapor Category 4, Acute Toxicity - Oral Category 4

<b>Acute Toxicity Dermal Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity
<b>Acute Toxicity Inhalation Gas Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity
<b>Acute Toxicity Inhalation Dust/Mist Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3 Composition / Information on Ingredients

<b>Chemical Name</b>	<b>CAS #</b>	<b>%</b>
Barium Hydroxide, 8-Hydrate	12230-71-6	100

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** None Known

# Safety Data Sheet

Hazardous Combustion Products: Metal Oxides,

## Section 6 Spill or Leak Procedures

### Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Avoid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Vacuum or sweep up material and place in a disposal container. Avoid runoff into storm sewers and ditches that lead to waterways.

## Section 7 Handling and Storage

**Handling:** Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not breathe dust. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Avoid contact with clothing. Do not ingest or take internally.

**Storage:** Store locked up. Keep container tightly closed in a cool, well-ventilated place. Store in a secure area suitable for toxic material.

**Storage Code:** White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Barium Hydroxide, 8-Hydrate	0.5 mg/m <sup>3</sup> TWA (as Ba)	N/A	0.5 mg/m <sup>3</sup> TWA (as Ba)	N/A

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Where use can result in skin contact, practice good personal hygiene. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly.

**Gloves:** Nitrile

## Section 9 Physical Data

<b>Formula:</b> Ba(OH) <sub>2</sub> * 8H <sub>2</sub> O	<b>Vapor Pressure:</b> N/A
<b>Molecular Weight:</b> 315.46	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Solid	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> No data available	<b>Specific Gravity:</b> N/A
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Slightly Soluble
<b>pH:</b> 12.5 at 50 g/l at 20 °C	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> No data available	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> No data available	<b>Decomposition Temperature:</b> No data available

# Safety Data Sheet

Flash Point: No data available  
Flammable Limits in Air: N/A

Viscosity: No data available  
Percent Volatile by Volume: 0%

## Section 10

## Reactivity Data

Reactivity: No data available  
Chemical Stability: Stable under normal conditions.  
Conditions to Avoid: None known.  
Incompatible Materials: Acids  
Hazardous Decomposition Products: Metal Oxides,  
Hazardous Polymerization: Will not occur

## Section 11

## Toxicity Data

Routes of Entry: Inhalation, ingestion, eye or skin contact.  
Symptoms (Acute): Impaired Kidney Function, Gastrointestinal,, Cardiovascular system  
Delayed Effects: No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Barium Hydroxide, 8-Hydrate	12230-71-6	Oral LD50 Rat 308 mg/kg Oral LD50 MAMMAL 308 mg/kg	Not determined	Not determined

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	12230-71-6	Not listed	Not listed	Not listed

### Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.  
Teratogenicity: No evidence of a teratogenic effect (birth defect).  
Sensitization: No evidence of a sensitization effect.  
Reproductive: No evidence of negative reproductive effects.  
Target Organ Effects:  
Acute: See Section 2  
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12

## Ecological Data

Overview: This material is not expected to be harmful to the ecology.  
Mobility: No data  
Persistence: No data  
Bioaccumulation: No data  
Degradability: No data  
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
N/A	12230-71-6	

## Section 13

## Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
Waste Disposal Code(s): Not Determined

## Section 14

## Transport Information

Ground - DOT Proper Shipping Name:  
UN number: 3262 Class: 8 Packing group: II Proper shipping name: Corrosive solid, basic, inorganic, n.o.s. (Barium hydroxide)  
Marine pollutant: No Poison Inhalation Hazard: No

Air - IATA Proper Shipping Name:  
UN number: 3262 Class: 8 Packing group: II Proper shipping name: Corrosive solid, basic, inorganic, n.o.s. (Barium hydroxide)

# Safety Data Sheet

## Section 15

## Regulatory Information

**TSCA Status:**

A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	12230-71-6	No	No	No	No	No

## Section 16

## Additional Information

**Revised: 09/03/2014****Replaces: 08/27/2014****Printed: 09-11-2014**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health