

MATERIAL SAFETY DATA SHEET

Barium Chloride Dihydrate

SECTION 1 . Product and Company Identification

Product Name and Synonym: Barium Chloride Dihydrate

Product Code: B0360

Material Uses:

Manufacturer:

Science Stuff
1104 Newport Ave

Austin, TX 78753

(512) 837-6020

Entry Date : 5/24/2013

Print Date: 5/24/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300

Canutec 613-996-6666

Health:	3
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

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

Physical state: Solid. [Crystals. Granular solid. Powder.]

Odor: Odorless.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

DANGER!

POISON!

MAY BE FATAL IF SWALLOWED.

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

HARMFUL IF INHALED

Do not ingest.

Avoid contact with skin and clothing. Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:

Inhalation. Ingestion.

Potential acute health effects:

Eyes: Moderately irritating to eyes.

Skin: Moderately irritating to the skin.

Inhalation: Toxic by inhalation. Moderately irritating to the respiratory system.

Ingestion: Very toxic if swallowed.

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 exposure of the eyes to a low level of dust can produce eye irritation.

SECTION 3 MIXTURE COMPONENTS

Barium Chloride Dihydrate

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Barium Chloride Dihydrate	CAS# 10326-27-9	100%	W/W	OSHA PEL 0.89 mg/mf

SECTION 4 FIRST AID MEASURES

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.

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

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

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

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Wear dust mask

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Barium Chloride Dihydrate

Product name - United States –

Barium Chloride, Dihydrate

ACGIH TLV (United States, 1/2007). Notes: as Ba

TWA: 0.5 mg/m³ 8 hour(s)

OSHA PEL (United States, 11/2006). Notes: as Ba

TWA: 0.5 mg/m³ 8 hour(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 measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, 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:

safety glasses with side-shields,

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

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.

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:	963° C	Percent Volatile by Volume:	0
Boiling Point:	1560° C	Evaporation Rate	not applicable
Vapor Pressure:	not applicable	Evaporation Standard	
Vapor Density:	not applicable	Auto Ignition Temp	Not applicable
Solubility in Water:	43 gms/100 mls water @30° C	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	white odorless crystals	Upper Flamm. Limit in Air	Not applicable

Barium Chloride Dihydrate

Flash Point: not flammable
Specific Gravity: 3.1

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable
Conditions to Avoid: keep away from intense heat
Materials to Avoid:
Hazardous Decomposition Products: none known
Hazardous polymerization: not known to 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
Other toxic effects on humans: Extremely hazardous in case ingestion, Hazardous in case of skin contact (irritant), of eye contact (irritant), 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: No known significant effects or critical hazards
Inhalation: Moderately irritating to respiratory system.
Eyes: Moderately irritating to eyes.
Skin: Moderately irritating to the skin

SECTION 12 Ecological Information

Environmental effects : No known significant effects or critical hazards.
Products of degradation: These products are halogenated compounds.
Some metallic oxides.
Toxicity of the products of biodegradation:
The products of degradation are as toxic as 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.

SECTION 14 Transport Information

DOT Classification: Barium Compounds, n.o.s., (Barium Chloride), 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

United States
HCS Classification
Highly toxic material
Irritating material

Barium Chloride Dihydrate

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: Barium Chloride, Dihydrate
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Barium Chloride, Dihydrate
Immediate (acute) health hazard, Delayed (chronic) 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 Chloride, Dihydrate
(environmental hazard, generic environmental hazard)
New Jersey: Barium Chloride, Dihydrate
Canada
WHMIS (Canada) :
Class D-1B: Material causing immediate and serious toxic effects (Toxic)
CEPA DSL/ CEPA NDSL : CEPA DSL:
No products were found
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16

Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

0.1

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.