



LABORATORY CHEMICALS AND CONSUMABLES

MATERIAL SAFETY DATA SHEET

BARIUM CHLORIDE DIHYDRATE

1. Chemical Product and Company information

Product name: Barium Chloride Dihydrate

Contact Information:

Radchem cc
PO Box 166982
Brackendowns
Alberton 1454
Telephone : **011 867 3726 / 2864**

Emergency Telephone Numbers:

2. Hazard Identification

Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Severe overexposure can result in death.

3. Composition / information on ingredients

CAS #: 10326-27-9

Synonym: Barium Dichloride Dihydrate

Chemical Name: Barium Chloride Dihydrate

Chemical Formula: BaCl₂.2H₂O

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: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

5. Fire-fighting measures

Flammability of the Product: Non-flammable

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 applicable

Special Remarks on Explosion Hazards: Not applicable

6. Accidental release measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. Handling and storage

Precautions: Keep locked up.. 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, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

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.

9. Physical and chemical properties

Physical state and appearance: Solid

Odour: Odourless

Taste: Bitter. Saline

Colour: White

Boiling Point: Not available

Melting Point: 963°C

Critical Temperature: Not available

Specific Gravity: Density: 3.86 (Water = 1)

Vapour Density: Not available

Volatility: Not available.

Odour Threshold: Not available

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol

Solubility: Easily soluble in cold water. Soluble in methanol. Insoluble in acetone. Practically insoluble in ethanol, ethyl acetate.

10. Stability and reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids

Corrosivity: Non-corrosive in presence of glass

Special Remarks on Reactivity: It is rapidly attacked by bromine trifluoride. Incompatible with 2-furan percarboxylic acid. Barium Chloride Dihydrate loses water at 100 to 113 deg. C.

Special Remarks on Corrosivity: Not available

Polymerization: Will not occur.

11. Toxicological information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available

Chronic Effects on Humans: Causes damage to the following organs: kidneys, the nervous system, peripheral nervous system, cardiovascular system, upper respiratory tract, central nervous system (CNS). May cause damage to the following organs: liver.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation

Special Remarks on Toxicity to Animals: Not available.



Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects. May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans: Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation with redness and pain. May cause blurred vision. Inhalation: respiratory tract and mucous membrane irritation. Ingestion: Ingestion may cause gastrointestinal tract irritation with nausea, vomiting, colicky diarrhea, increased salivation, and severe abdominal pain. It may also cause mydriasis, renal failure, hepatocellular damage, dyspnoea, tachypnea, shallow breathing, respiratory failure, tinnitus, chest pain, cardiac arrhythmias/disarrhythmias, hypertension, bradycardia, hypokalemia, hypophosphatemia, vertigo, faintness, progressive muscular paralysis, muscle weakness, dizziness, tremors, convulsions, and seizures. It may also affect the blood (changes in leukocyte count, changes in serum composition).

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.

13. Disposal considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

14. Transport information

DOT Classification: CLASS 6.1: Poisonous material

Identification: : Barium Compound, n.o.s. (Barium Chloride) UNNA: 1564 PG: III

Special Provisions for Transport: Marine Pollutant

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