

Material Safety Data Sheet / Safety Data sheet

Barium Chloride Dihydrate

Section 1: Chemical Product Identifier and Synonyms

Product Name: Barium Chloride Dihydrate

UN Number: 1564

CAS Number: 10326-27-9

Synonym: barium dichloride, dihydrate / muriate of barium, dihydrate

Chemical Formula: BaCl₂.2H₂O

Section 2: Composition and Information on Ingredients

Composition

Name	CAS Number:	% By Weight
Barium Chloride Dihydrate	10326-27-9	>100

Toxicology Data On Ingredients: Barium Chloride Dihydrate LD50: Not Available. LC50: Not Available

Section 3: Hazards Identification

Potential Acute Health Effects:

Toxic if swallowed

Harmful if inhaled

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Breathing difficulties.

Causes burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, light-headedness, chest pain, muscle pain or flushing

Section 4: First Aid Measures

Eye Contact:

Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

Skin Contact:

Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

Inhalation:

Remove the victim into fresh air. If there are respiratory problems consult a doctor/medical service.

Ingestion:

Rinse mouth with water. Give nothing to drink. Victim is fully conscious: immediately induce vomiting. Induce vomiting by giving a 0.9 % saline solution. Immediately consult a doctor/medical service. Call Poison Information Centre. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. Doctor: administration of chemical antidote. Doctor: gastric lavage.

Section 5: Fire and Explosion Data

Flammability of the Product: Not available.

Auto-Ignition Temperature: Not available.

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: Not available.

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:

Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

Large Spill:

In case of large spill: keep upwind. In case of dust production: consider evacuation. Dust production: have neighbourhood close doors and windows.

Section 7: Handling and Storage

Precautions:

Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Storage:

KEEP SUBSTANCE AWAY FROM: heat sources.

KEEP SUBSTANCE AWAY FROM: heat sources.

Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Unauthorized persons are not admitted. Meet the legal requirements.

SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements.

Secure fragile packaging's in solid containers.

SUITABLE MATERIAL: steel. stainless steel. paper with plastic inner lining. cardboard. synthetic material.

MATERIAL TO AVOID: aluminium.

Section 8: Exposure Controls / Personal Protection

Engineering Controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.

Personal Protection:

Safety glasses. Gloves. Protective clothing. Dust production: dust mask with filter type P3.

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:

Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odour: Odourless.

Taste: Not available.

Molecular Weight: 244.28 g/mole

Colour: White

pH (1% soln/water): Not available.

Boiling Point: 1560 °C

Melting Point: 963°C

Critical Temperature: Not available.

Specific Gravity: 2.1500 (Water = 1)

Vapour Pressure: < 0.1 hPa (20 °C)

Vapour Density: Not available.

Volatility: Not available.

Odour Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Soluble in water. Water: 36 g/100ml

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Strong oxidizers.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Not available.

Section 11: Toxicological Information

Routes of Entry: Inhalation; Skin and eye contact

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

Chronic Effects on Humans: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat.
Coughing.
Redness of the eye tissue.

Other Toxic Effects on Humans: Vomiting. Nausea. Abdominal pain. Blood in stool. Bleeding of the gastrointestinal tract. Increased salivation. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Disturbances of heart rate. High arterial pressure

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: Not available.

Section 12: Ecological Information

Ecotoxicity: Not classified as dangerous for the ozone layer

Mild water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 250 mg/l (chloride) (Directive 98/83/EC). Slightly harmful to fishes (LC50 100-1000 mg/l). Harmful to invertebrates (Daphnia). Harmful to aquatic plants. Not harmful to bacteria (EC50 >1000 mg/l).

BOD5 and COD: Not available.

Products of Biodegradation: Not applicable.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Information

Waste Disposal: Dispose of in accordance with local regulations

Section 14: Transport Information

DOT Classification: CLASS 6.1: Poisonous material.

Identification: Barium Chloride Dihydrate UN Number: UN1564 PG: III

Special Provisions for Transport: Not available.

Section 15: Regulatory Information

Regulations: Labelling according to Regulation (EC) No 1272/2008.

Section 16: Other Information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials. The author will not be held liable for any damage or injury caused by this product and does not obviate the requirement for end users to carry out their own workplace and specific use risk assessment.

Date of Publication: 14th May 2017