

**Material Safety Data Sheet BARIUM CHLORIDE SOLN**

IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers and users of this product. The contents and format of this MSDS are in accordance with EC Commission Directive 91/155EEC.

1. **Identification**  
 Chemical Description  
 Barium Chloride Solution      I.D. No.: 1647300
  
2. **Composition**  
 Barium Chloride Solutions 10 to 40%  
 CAS No.: 10326-27-9  
 Solution in Water
  
3. **Hazards Identification**  
 Harmful by inhalation and if swallowed
  
4. **First Aid Measures**
  - Eye Contact
    - Irrigate thoroughly with water for at least 10 minutes. If discomfort persists obtain medical attention.
  - Inhalation
    - Remove from exposure, rest and keep warm. Obtain medical attention in severe cases.
  - Skin Contact
    - Wash off skin thoroughly with water. Remove contaminated clothing and wash before re-use. Obtain medical attention in severe cases.
  - Ingestion
    - Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.
  
5. **Fire Fighting Measures**  
 Special Risks      May evolve toxic fumes in fire  
 Extinguishing Media      N/A
  
6. **Accidental Release Measures**  
 Wear appropriate protective clothing. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water.  
 Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with detergent and water. For large spillage liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residue should be treated as for small spillage
  
7. **Handling and Storage**  
 Handling  
 Under no circumstances eat, drink or smoke while handling this material. Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before re-use.  
 Storage  
 Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.
  
8. **Exposure controls / Personal Protection (as appropriate to quantities handled)**  

Protective Equipment	Goggles or face-shield, rubber or plastic gloves, plastic apron, sleeves and boots if handling large quantities
Respiratory Protection	Dust respirator
Ventilation	Extraction hood
  
9. **Physical and Chemical Properties**  

Appearance/Form	Liquid
Colour	Colourless
Odour	Odourless
Melting Point	n/a
Boiling Point	n/a
Density (g/ml)	n/a
Solubility in water	Miscible in all proportions
  
10. **Stability and Reactivity**  

Stability	Stable
Reactivity	No data
  
11. **Toxicological information**  
 The following applies to soluble barium compounds in general: ingestion is followed by mucosal irritation, nausea, salivation, vomiting, dizziness, pain, colics and diarrhoea. Systemic effects include; cardiac dysrhythmias, bradycardia (subdued cardiac activity), rise in blood pressure, shock and circulatory collapse as well as muscular rigidity.  
 No evidence of carcinogenic properties. May cause adverse mutagenic or teratogenic effects
  
12. **Ecological Information**  
 Toxic material likely to present a pollution hazard if allowed to enter drainage systems. The following applies to barium compounds, biological effects: fish: lethal from 158 mg/l; salmon lethal from 158 mg/l up (as BaCl<sub>2</sub>); L. idus LC50: 870 mg/l (as BaCl<sub>2</sub>); barium ions toxic for aquatic organisms: algae: Sc. Quadricauda toxic from 34 mg/l up; crustaceans: toxic from 29 mg/l; hazard for drinking water!
  
13. **Disposal Considerations**  
 Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

**14. Transportation Information**

Correct Technical Name - Toxic Liquid, Inorganic n.o.s.	
UN No 3287	IMDG Class 6.1
IATA 3287	Packing group 3
IMO 6.1 /3287	Packing group 3
ADR/RID	6.1, 60'(c)

**15. Regulatory Information**

Symbol	Xn Harmful
Risk Phrases	R20/22 - Harmful by inhalation and if swallowed
Safety Phrases	S28 - After contact with skin, wash immediately with plenty of water
Classified as a Schedule 1 poison under UK Poisons Rules	
UK Exposure Limits	OES, Long-term, mg/m3: 0.5 - Barium Compounds soluble (as Ba)

**16. Other Information**

All information, recommendations and suggestions herein concerning the above product are based upon data believed to be reliable, however, it is the users responsibility to determine the safety, toxicity, and suitability for his/her own use of the product described herein. The information herein should not be construed as being absolutely complete since additional information may be necessary or desirable when special or exceptional circumstances exist or because of applicable laws or regulations.

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