

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1" style="margin: auto;"> <tr><td style="background-color: #00FFFF;">Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: #FFCCCC;">Fire Hazard</td><td style="text-align: center;">0</td></tr> <tr><td style="background-color: #FFFF00;">Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	 See Section 15.
Health Hazard	2							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Barium Chloride, 11.8%	Catalog Number(s). B-094 CAS# Mixture. RTECS Not applicable. TSCA TSCA 8(b) inventory: Water CI# Not available.
Manufacturer	SPECTRUM QUALITY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000
Commercial Name(s)	Not available.	
Synonym	Barium Chloride, solution, 11.8% (w/v)	
Chemical Name	Not applicable.	
Chemical Family	Not available.	
Chemical Formula	Not applicable.	
Supplier	SPECTRUM QUALITY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Water	7732-18-5				88.2
2) Barium chloride dihydrate	10326-27-9	0.5			11.8
Toxicological Data on Ingredients	Barium chloride dihydrate LD50: Not available. LC50: Not available.				

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, heart, cardiovascular system, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 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 if irritation occurs.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
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	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	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Do not ingest. Do not breathe gas/fumes/ vapor/spray. 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.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor 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	Barium chloride dihydrate TWA: 0.5 (mg(Ba)/m ³) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Odorless.
Molecular Weight	Not applicable.	Taste	Not available.
pH (1% soln/water)	Not available	Color	Clear Colorless.
Boiling Point	The lowest known value is 100°C (212°F) (Water).		
Melting Point	Not available.		
Critical Temperature	Not available.		
Specific Gravity	1.2031 (Water = 1)		
Vapor Pressure	The highest known value is 2.3 kPa (@ 20°C) (Water).		
Vapor Density	The highest known value is 0.62 (Air = 1) (Water).		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol.		
Solubility	Easily soluble in cold water, hot water. Soluble in methanol. Insoluble in acetone.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials
Incompatibility with various substances	Slightly reactive to 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. (Barium chloride dihydrate)
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects based on animal test data. May affect genetic material (mutagenic) (Barium chloride dihydrate)
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, dyspnea, 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). (Barium chloride dihydrate)

Section 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.

Section 13. Disposal Considerations

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

Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations TSCA 8(b) inventory: Water

California Proposition 65 Warnings California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications **WHMIS (Canada)** Not controlled under WHMIS (Canada).

DSCL (EEC) R22- Harmful if swallowed. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	g

National Fire Protection Association (U.S.A.)

Health	2	0	0	Flammability
				Reactivity
				Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment

Not applicable.
Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Safety glasses.

Section 16. Other Information

MSDS Code B3033

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 9/23/2009.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.