

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)



spectrum®

Revision date 12-December-2024

Revision Number 4

1. Identification

Product identifier

Product Name BARIUM CHLORIDE DIHYDRATE, CRYSTAL, REAGENT, ACS

Other means of identification

Product Code(s) B1025

UN number or ID number UN1564

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use No information available

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Address

Spectrum Chemical Mfg. Corp.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements



Danger

Hazard statements

Toxic if swallowed.

Harmful if inhaled.

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

Specific treatment (see .? on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Rinse mouth.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Unknown acute toxicity

Other information

Causes mild skin irritation.

3. Composition/information on ingredients

Substance

Chemical name	CAS No.	Weight-%
Barium Chloride, Dihydrate	10326-27-9	100

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

If breathing has stopped, give artificial respiration. Get medical attention immediately.
Remove to fresh air. If symptoms persist, call a physician.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.
Consult a physician.

Skin contact	Wash skin with soap and water.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Prolonged contact may cause redness and irritation. Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid generation of dust. Do not breathe dust. Use personal protective equipment as required.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Technical Measures/Precautions:	Provide sufficient air exchange and/or exhaust in work rooms Keep away from incompatible materials
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Ensure adequate ventilation. Do not eat, drink or smoke when using this product.
General hygiene considerations	Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
Incompatible Materials:	Acids Oxidizing agents 2-furan percarboxylic acid

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Barium Chloride, Dihydrate 10326-27-9	-	0.5 mg/m ³ TWA (as Ba)	-

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Crystalline

Color	Colorless; to; White
Odor	Odorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
pH (as aqueous solution)		None known
Melting point / freezing point	963 °C / 1765.4 °F	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	no data available	None known
Flammability	no data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	3.86	None known
Water solubility	Easily soluble in cold water	None known
Solubility(ies)	Soluble in Methanol Practically insoluble in Ethanol Practically insoluble in Ethyl Acetate Insoluble in Acetone	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	no data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	244.26	
VOC content	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Spontaneous polymerisation.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Causes mild skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Prolonged contact may cause redness and irritation. Coughing and/ or wheezing.
Acute toxicity	No information available.
Numerical measures of toxicity	No information available
Unknown acute toxicity	

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. May cause skin irritation.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity	The environmental impact of this product has not been fully investigated.
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Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

DOT

UN number or ID number	UN1564
Proper shipping name	Barium compounds, n.o.s.
Transport hazard class(es)	6.1
Special Provisions	III
Special Provisions	IB8, IP3, T1, TP33
DOT Marine Pollutant	NP
Description	UN1564, Barium compounds, n.o.s., 6.1, III

TDG

UN/ID no.	UN1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing Group	III
Description	UN1564, Barium compound, n.o.s., 6.1, III

MEX

UN-No	UN1564
Proper Shipping Name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing Group	III
Description	UN1564, Barium compound, n.o.s., 6.1, III
Special Provisions	177, 223, 274

ICAO (air)

UN/ID no.	UN1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing Group	III
Description	UN1564, Barium compound, n.o.s., 6.1, III
Special Provisions	A3, A82

IATA

UN number or ID number	UN1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Description	UN1564, Barium compound, n.o.s., 6.1, III

IMDG

UN number or ID number	UN1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing group	III F-A
Special Provisions	177, 223, 274
Description	UN1564, Barium compound, n.o.s., 6.1, III

ADR

UN number or ID number	1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Special Provisions	177, 274, 513, 587
Description	1564, Barium compound, n.o.s., 6.1, III, (E)

RID

UN number or ID number	UN1564
Proper shipping name	Barium compound, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Special Provisions	177, 274, 513, 587
Description	UN1564, Barium compound, n.o.s., 6.1, III

15. Regulatory information

International Inventories

TSCA Not listed

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDL	Does not Comply
EINECS/ELINCS	Does not Comply
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Does not Comply
PICCS	Complies
AIIC	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).
NZIoC	Does not comply
TCSI	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CAA (Clean Air Act)

This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

International Inventories

Chemical name	CAS No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	IECSC	AIIC	EINECS-No.
	10326-27-9	Not listed. It is exempt from listing on the TSCA 8(b) Inventory since it is a hydrate. However, the anhydrous form	Not present	Present	Present (1)-79	Present[24017]	X	Not present

		(CAS no.10361-37-2) is listed as ACTIVE on the TSCA 8(b) Inventory.							
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U.S. Regulations

Chemical name	Massachusetts	M.A. EHS:	New Jersey	New Jersey - Environmental Hazardous Substances	N.J.- Discharge Prevention:	New Jersey TCPA - EHS:	Pennsylvania	P.A. RTK - Environmental Hazard	P.A. RTK - Special Hazardous
Barium Chloride, Dihydrate			sn 2146 (Barium compounds)		Present (Barium compounds)		Environment al hazard (barium compounds)	Present (Barium compounds)	

Chemical name	Michigan - Critical Materials:	Michigan PSM HHC:	Minnesota - Hazardous Substance:	N.Y. Release - Hazardous Substances:	C.T. - Carcinogenic:
Barium Chloride, Dihydrate			Present (soluble barium compounds)		

Chemical name	Louisiana Reportable Quantity List for Pollutants:	California Directors List of Hazardous Substances:	FDA - Food Additives Generally Recognized as Safe (GRAS):	FDA - Direct Food Additives	FDA - 21 CFR - Total Food Additives - List Sourced from EAFUS
Barium Chloride, Dihydrate	100 lb. RQ (Barium compounds)	Present (soluble barium compounds)			

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemical name	CAS No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
	10326-27-9	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

CERCLA

TSCA

Chemical name	CAS No.	Hazardous Substances RQs	TPQ	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category
	10326-27-9			None	Barium compounds

U.S. TSCA

Chemical name	CAS No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
	10326-27-9	Not Applicable	Not Applicable

Canada**WHMIS 2015 - GHS Classifications**WHMIS 2015 Hazard Classification
Information:

Component
Barium Chloride, Dihydrate
10326-27-9 (100)

WHMIS 2015 Hazard Classification
Acute toxicity - Oral - Category 3: H301 Toxic if swallowed.;
Serious Eye Damage/Eye Irritation - Category 2A: H319 Causes
serious eye irritation.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Chemical name	CAS No.	Canada (DSL)	Canada (NDSL)
	10326-27-9	Not Listed	Not Listed

Chemical name	CAS No.	CEPA Schedule I - Toxic Substances
	10326-27-9	Not listed
Chemical name	CAS No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
	10326-27-9	Not listed

Chemical name	CAS No.	EU GHS - SV - CLP (1272/2008)
	10326-27-9	No information

S -phrase(s)

none

Chemical name	CAS No.	Classification according to Directive 67/548/EEC or 1999/45/EC	Concentration Limits:	Safety Phrases
Barium Chloride, Dihydrate	10326-27-9		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Not dangerous

16. Other information

NFPA	Health hazards 2	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend**

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitizers		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 12-December-2024**Revision Note** No information available.**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet