



MATERIAL SAFETY DATA SHEET
Barium chloride dihydrate

Section 1 - Chemical Product and Company Identification

MSDS Name: Barium chloride dihydrate
Catalog Numbers: B/0500/53, B/0500/60, B/0500/65, B/0500/70, B/0550/53, B/0550/60, B/0550/65, B/0550/70
Synonyms: Barium dichloride dihydrate.
Company Identification: Fisher Scientific UK
 Bishop Meadow Road, Loughborough
 Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
10326-27-9	Barium chloride dihydrate	99+	unlisted		

Text for R-phrases: see Section 16

Hazard Symbols: T



Risk Phrases: 20 25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic if swallowed. Harmful by inhalation.

Potential Health Effects

Eye: Contact produces irritation, tearing, and burning pain. May cause conjunctivitis.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: Poison by ingestion. May cause kidney damage. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause hemorrhaging of the digestive tract.
Inhalation: Harmful if inhaled. May cause respiratory tract irritation.
Chronic: May cause liver and kidney damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious

person.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

CAS# 10326-27-9:

CAS# 10361-37-2:

Russia: 0.3 mg/m³ TWA (aerosol) Russia: 1 mg/m³ STEL (aerosol)

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white

Odor: odorless

pH: 5-8 (5% aq. sol.)

Vapor Pressure: Not available

Viscosity: Not available

Boiling Point: 1560 deg C @ 760 mmHg (2,840.00°F)

Freezing/Melting Point: 962 deg C (1,763.60°F)

Autoignition Temperature: Not applicable

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

Decomposition Temperature:

Solubility in water: Soluble

Specific Gravity/Density: Not available.

Molecular Formula: BaCl₂.2H₂O

Molecular Weight: 244.28

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents, bromine trifluoride.
Hazardous Decomposition Products	Hydrogen chloride, chlorine.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 10326-27-9: CQ8751000 CAS# 10361-37-2: CQ8750000
LD50/LC50:	RTECS: Not available. RTECS: CAS# 10361-37-2: Oral, mouse: LD50 = 150 mg/kg; Oral, rat: LD50 = 118 mg/kg; Oral, rat: LD50 = 397 mg/kg;
Carcinogenicity:	Barium chloride dihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Barium chloride anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	BARIUM COMPOUND, N.O.S.	BARIUM COMPOUND, N.O.S.	BARIUM COMPOUND, N.O.S.
Hazard Class:	6.1	6.1	6.1
UN Number:	1564	1564	1564

Section 15 - Regulatory Information**European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 20 Harmful by inhalation.

R 25 Toxic if swallowed.

Safety Phrases:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 10326-27-9: 1

CAS# 10361-37-2: 1

Canada

CAS# 10361-37-2 is listed on Canada's DSL List

US Federal

TSCA

CAS# 10326-27-9 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

CAS# 10361-37-2 is listed on the TSCA Inventory.

Section 16 - Other Information**Text for R-phrases from Section 2**

MSDS Creation Date: 4/23/1999

Revision #10 Date 2/11/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
