



Safety Data Sheet

Date of Issue: 30.08.2021

Date of Expiry: 30.08.2026

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Product Name	Barium Chloride dihydrate
Product Code	14301
CAS No.	10326-27-9

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1 GHS Classification

Acute toxicity, Oral (Category C), H301
Acute toxicity, Inhalation (Category D), H332

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word : Danger

Hazard statement(s)

H301 Toxic if swallowed.
H332 Harmful if inhaled.

Precautionary statement(s)

Prevention

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

3: Composition/information on ingredients

3.1 Substances

Formula : BaCl₂ · 2H₂O
Molecular weight : 244.26 g/mol
CAS-No. : 10326-27-9
EC-No. : 233-788-1
Index-No. : 056-004-00-8

Component	Classification	Concentration
Barium Chloride 2H₂O		
	6.1 C; 6.1 D; 6.4 A; H301, H332, H319	<= 100 %

4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation :

Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact :

Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion :

Rinse mouth. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after ingestion :

Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting :

Do not enter fire area without proper protective equipment, including respiratory protection.

6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up :

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

No additional information available

7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling :

Avoid contact with skin and eyes. Do not breathe vapours. Avoid dust formation.

Hygiene measures :

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Barium Chloride dihydrate	10326-27-9	WES-TWA	0.5 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Hand protection

: Protective gloves

Eye protection

: Chemical goggles or safety glasses

Skin and body protection

: Wear suitable protective clothing

Respiratory protection

: Wear respiratory protection

9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White powder.
Odour	: odourless.
Odour threshold	: No data available
pH	: 5 - 8 at 50 g/l at 25 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 963 °C
Freezing point	: No data available
Boiling point	: 1560 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 3.86 g/cm ³
Solubility	: Water : 31 g/100ml @ 0C
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Barium oxide

Other decomposition products - No data available

In the event of fire: see section 5

11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity :
Oral : Toxic if swallowed.
Inhalation : Harmful if inhaled.

Skin corrosion/irritation : Not classified
pH: 5 - 8 at 50 g/l at 25 °C

Serious eye damage/irritation : Not classified
pH : 5 - 8 at 50 g/l at 25 °C

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Toxic if swallowed.

Additional Information

RTECS: CQ8751000

Vomiting, Diarrhoea

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

The following applies to soluble barium compounds in general: after swallowing: mucosal irritation, nausea, salivation, vomiting, dizziness, pain, colic's, and diarrhoea. Systemic effects include : cardiac dysrhythmias, bradycardia (subdued cardiac activity), rise in blood pressure, shock and circulatory collapse as well as muscular rigidity.

Chronic intoxication:

damage of respiratory tract, conjunctivitis, Dermatitis, cardiovascular disorders

Handle in accordance with good industrial hygiene and safety practice.

Other dangerous properties cannot be excluded.

12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

Formation of health-hazardous mixtures possible with water. Endangers drinking-water

supplies if allowed to enter soil or water.
Discharge into the environment must be avoided.

13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1564	1564	1564
14.2	UN Proper Shipping name	BARIUM COMPOUND, N.O.S. (Barium chloride dihydrate)	BARIUM COMPOUND, N.O.S. (Barium chloride dihydrate)	Barium compound, n.o.s. (Barium chloride dihydrate)
14.3	Transport Hazard Class	6.1	6.1	6.1
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	none		
14.7	Incompatible materials	Strong oxidizing agents		
14.8	Hazchem Code	2Z		

15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval Code: HSR004354

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied,

with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product 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.

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