

Revision: 1.1

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Section 1. Identification

1.1 Product Identifier 0864

Product Name BARIUM CHLORIDE 2H₂O pure

CAS Number 10326-27-9

REACH Registration No 01-2119502547-42-XXXX

Molecular Formula BaCl₂ · 2H₂O =244.27

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



Grangefield Industrial Estate
Richardshaw Road
Pudsey
West Yorkshire
LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811
Fax +44(0)113 2362703
Email safety@viclabs.co.uk
Website www.viclabs.co.uk

1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Acute toxicity, category 3 (oral)

Acute toxicity, category 4 (inhalation)

H301: Toxic if swallowed.

H332: Harmful if inhaled.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Toxic if swallowed. Harmful if inhaled.

Precautionary Statements Store locked up. Do not eat, drink or smoke when using this product. Wear protective gloves / protective clothing / eye protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Avoid breathing dust / fume / gas / mist / vapours / spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Barium Chloride	10326-27-9	233-788-1	01-2119502547-42-XXXX	<100%	Acute Tox. 3 (O), Acute Tox. 4 (I)

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. If discomfort persists OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation.
Ingestion	Wash out the patients mouth thoroughly with water. If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

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

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Consider all other materials in the vicinity.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Avoid breathing dust-wear respiratory protective equipment. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so.
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6.2 Environmental precautions

Environmental	Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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6.3 Methods and material for containment and cleaning up

Major Spillage	Shovel/sweep up into container for removal Wash area down with copious amounts of water.
Minor Spillage	Shovel/sweep up into container for removal Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)	Short Term 15min period		
Barium Chloride	10326-27-9	<100%	-	-	0.5 ppm	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.
Hand Protection	Wear gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	White crystalline powder or granules.
Odour	No specific odour.
pH	7 @ 20°C solution.
Boiling Point	1560 °C
Melting Point	960 °C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	3.8560
Water Solubility	375 g/L

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1 Reactivity No data available.

10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	No specific conditions.
10.5	Incompatible Materials	No specific materials to avoid.
10.6	Hazardous Decomposition Products	May produce hazardous fumes if involved in a fire.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Contact with the solid or dust will be irritating to the eyes.
Skin	Contact with the solid or dust will be irritating to the skin. Chronic exposure may lead to dermatitis.
LD50 Skin	>2000 mg/Kg Rat
Ingestion	Toxic if swallowed. May cause damage to central nervous system and kidneys. Soluble barium salts are rapidly absorbed from the G.I. tract and are very toxic orally. Symptoms include muscular stimulation and central nervous system effects. Fatal dose in humans is reported to be 0.8-0.9g but much larger amounts have been tolerated. Classified as an S1 poison.
LD50 Oral	619 mg/kg Rat
Inhalation	Inhalation of dust will produce irritation of the eyes, nose, throat and respiratory tract. Inhalation of the dust can result in symptoms similar to those due to ingestion.
LD50 Inhalation	>1.1 mg/L (air) Rat (4 hours)
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

Section 12. Ecological

12.1	Toxicity	Marine and/or freshwater pollutant. Do not allow to enter drinking water supplies. The following applies to Barium Compounds: biological effects; Fish, lethal from 158mg/l. Salmon lethal from 158mg/l: L.Idus LC50: 870mg/l [both as BaCl2]. Barium ions are toxic for aquatic organisms: algae: Sc. quadricauda toxic from 34mg/l: Crustaceans toxic from 29mg/l.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Do not dispose of as domestic waste.
Contaminated Packaging	Wash out containers with water.

Section 14. Transport Information

14.1 UN Number	1564
14.2 Proper Shipping Name	Barium compound, N.O.S. (Barium Chloride Dihydrate)
14.3 Transport classes	
UN classification	6.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	60
Tunnel Restriction Code	E
14.4 Packing Group	III
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 3 (oral); Acute toxicity, category 4 (inhalation)

Signal word Danger

Hazard Pictograms



Hazard Statements H301, H332
Toxic if swallowed. Harmful if inhaled.

Precautionary Statements P405, P270, P280, P301+P310, P261, P304+P340
Store locked up. Do not eat, drink or smoke when using this product. Wear protective gloves / protective clothing / eye protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Avoid breathing dust / fume / gas / mist / vapours / spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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