

Revision: 1.2

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Section 1. Identification

1.1 Product Identifier 1672

Product Name BARIUM HYDROXIDE 8H₂O pure
CAS Number 12230-71-6
REACH Registration No 01-2119495571-31-XXXX
Molecular Formula Ba(OH)₂ · 8H₂O = 315.47

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



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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

Skin corrosion/irritation, category 1B H314: Causes severe skin burns and eye damage.
Acute toxicity, category 4 (oral) H302: Harmful if swallowed.
Acute toxicity, category 4 (inhalation) H332: Harmful if inhaled.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Harmful if swallowed. Causes severe skin burns and eye damage. Harmful if inhaled.

Precautionary Statements Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Barium compounds (as Ba)	12230-71-6		01-2119495571-31-XXXX	<100%	Skin Corr. 1B, Acute Tox. 4 (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. OBTAIN MEDICAL ATTENTION URGENTLY.
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. OBTAIN MEDICAL ATTENTION URGENTLY.
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 compounds (as Ba)	12230-71-6	<100%	-	-

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection	Use approved respiratory protection.
Hand Protection	Wear PVC gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Wear PVC oversuit.
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	13 @ 20°C
Boiling Point	Not available
Melting Point	380°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	2.1800
Water Solubility	5.6%

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	Avoid exposure to heat.
10.5 Incompatible Materials	No specific materials to avoid. Will react with atmospheric carbon dioxide to produce the carbonate.
10.6 Hazardous Decomposition Products	Not specified.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Severe eye irritant. Risk of irreversible damage to eyes.
Skin	The powder may be an irritant on brief or occasional exposure.
LD50 Skin	Not available
Ingestion	Corrosive injury to tissues contacted. Muscle weakness, and possible severe internal injuries. Arrhythmias (deviation from normal heartbeat.) Severe abdominal pain, ringing in the ears and hypertension. Severe cases may result in death.
LD50 Oral	Not available
Inhalation	Inhalation of dust may seriously damage the membranes lining the nose, throat and upper respiratory tract.
LD50 Inhalation	Not available
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 BaCl ₂]. 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	Dispose of via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

Section 14. Transport Information

14.1 UN Number	3262
14.2 Proper Shipping Name	Corrosive solid, basic, inorganic, N.O.S. (Barium Hydroxide Octahydrate)
14.3 Transport classes	
UN classification	8
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	80
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 Skin corrosion/irritation, category 1B; Acute toxicity, category 4 (oral); Acute toxicity, category 4 (inhalation)

Signal word Danger

Hazard Pictograms



Hazard Statements H302, H314, H332
Harmful if swallowed. Causes severe skin burns and eye damage. Harmful if inhaled.

Precautionary Statements P264, P270, P301+P312, P330
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

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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