

**Section 1. Identification****1.1 Product Identifier**

CHE1264

Product Name BARIUM HYDROXIDE 8H<sub>2</sub>O pure 500g.

CAS Number 12230-71-6

REACH Registration No 01-2119495571-31-XXXX

Molecular Formula Ba(OH)<sub>2</sub> · 8H<sub>2</sub>O = 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**

Scientific Laboratory Supplies

Unit 6, Foresters Avenue  
Fairham Business Park  
Fairham  
Nottingham  
NG11 2AF  
UNITED KINGDOM

Phone 0115 9821111

Fax 0115 9825275

Email sales@scientific-labs.com

**1.4 Emergency Telephone**(08:00-17:00) 0115 9821111  
(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

Acute toxicity, category 4 (oral)

Acute toxicity, category 4 (inhalation)

H314: Causes severe skin burns and eye damage.

H302: Harmful if swallowed.

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. |
|---------|---|

### 5.3 Advice for firefighters

|                         |   |
|-------------------------|---|
| Advice for firefighters | Consider all other materials in the vicinity. |
|-------------------------|---|

## 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. |
|---------------------|--|

### 6.2 Environmental precautions

|               |  |
|---------------|--|
| Environmental | Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
|---------------|--|

### 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<br>(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

|             |                                    |  |
|-------------|------------------------------------|--|
| <b>10.3</b> | Possibility of hazardous reactions | No data available.   |
| <b>10.4</b> | Conditions to Avoid                | Avoid exposure to heat.  |
| <b>10.5</b> | Incompatible Materials             | No specific materials to avoid. Will react with atmospheric carbon dioxide to produce the carbonate. |
| <b>10.6</b> | 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

|             |                                  |   |
|-------------|----------------------------------|---|
| <b>12.1</b> | 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 <sub>2</sub> ]. 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   |
| <b>12.2</b> | Persistence and degradability    | No data available.  |
| <b>12.3</b> | Bioaccumulative potential        | No data available.  |
| <b>12.4</b> | Mobility in soil                 | No data available.  |
| <b>12.5</b> | Results of PBT & vPvB assessment | Assessment not required.  |
| <b>12.6</b> | 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

|  |   |
|--|---|
| <b>14.1 UN Number</b>                    | 3262  |
| <b>14.2 Proper Shipping Name</b>         | Corrosive solid, basic, inorganic, N.O.S.<br>(Barium Hydroxide Octahydrate) |
| <b>14.3 Transport classes</b>            |   |
| UN classification                        | 8   |
| Subsidiary hazard(s)                     | None  |
| Transport category                       | 3   |
| ADR Hazard ID                            | 80  |
| Tunnel Restriction Code                  | E   |
| <b>14.4 Packing Group</b>                | III   |
| <b>14.5 Environment hazards</b>          | See section 12.   |
| <b>14.6 Special precautions for user</b> | No special precautions required.  |
| <b>14.7 Transport in bulk</b>            | 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.

Revision number: 1.2 (Supercedes revision 1.1)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 16 September 2024

Copyright: 2024 Scientific Laboratory Supplies