

CAS No: 12230-71-6 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|--|
| Product form | : Substance |
| Trade name | : BARIUM HYDROXIDE OCTAHYDRATE AR |
| CAS No | : 12230-71-6 |
| Product code | : 01701 |
| Formula | : Ba(OH) ₂ ·8H ₂ O |
| Synonyms | : Barium Hydrate |

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

| | |
|---|------|
| Skin corrosion/irritation, Category 1B | H314 |
| Acute toxicity (inhal.), Category 4 | H332 |
| Acute toxicity (oral), Category 4 | H302 |

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

C; T; R20-22-34

Full text of R-phrases: see section 16

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Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H302+H332 - Harmful if swallowed or if inhaled
H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, eye protection, face protection
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : BARIUM HYDROXIDE OCTAHYDRATE AR

CAS No : 12230-71-6

Full text of R- and H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Get immediate medical advice/attention. Wash with plenty of soap and water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
Symptoms/injuries after ingestion : 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

Treat symptomatically.

SECTION 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.

SECTION 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

SECTION 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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

| | |
|--------------------------|-------------------------------------|
| Hand protection | : Protective gloves |
| Eye protection | : Chemical goggles or face shield |
| Skin and body protection | : Wear suitable protective clothing |
| Respiratory protection | : Wear respiratory protection |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------------|
| Physical state | : Solid |
| Colour | : White crystalline. |
| Odour | : odourless. |
| Odour threshold | : No data available |
| pH | : 12.5 at 50 g/l at 20 °C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 78 °C |
| Freezing point | : No data available |
| Boiling point | : 780 °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 | : 2.18 g/cm ³ |
| Solubility | : Water: 5.6 g/100g water |
| 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

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SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Overheating. Open flame. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 12.5 at 50 g/l at 20 °C

Serious eye damage/irritation : Serious eye damage, category 1, implicit
pH: 12.5 at 50 g/l at 20 °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 : Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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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

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 3262 |
| UN-No. (IMDG) | : 3262 |
| UN-No.(IATA) | : 3262 |
| UN-No.(ADN) | : 3262 |
| UN-No. (RID) | : 3262 |

14.2. UN proper shipping name

| | |
|---------------------------------------|---|
| Proper Shipping Name (ADR) | : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| Proper Shipping Name (IMDG) | : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| Proper Shipping Name (IATA) | : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| Proper Shipping Name (ADN) | : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| Proper Shipping Name (RID) | : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| Transport document description (ADR) | : UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, II, (E) |
| Transport document description (IMDG) | : UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, II |
| Transport document description (IATA) | : UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, II |
| Transport document description (ADN) | : UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, II |
| Transport document description (RID) | : UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., 8, II |

14.3. Transport hazard class(es)

ADR

| | |
|----------------------------------|-----|
| Transport hazard class(es) (ADR) | : 8 |
| Danger labels (ADR) | : 8 |

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IMDG

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8



RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

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14.6. Special precautions for user

- Overland transport

| | |
|---|---------------|
| Classification code (ADR) | : C6 |
| Special provision (ADR) | : 274 |
| Limited quantities (ADR) | : 1kg |
| Excepted quantities (ADR) | : E2 |
| Packing instructions (ADR) | : P002, IBC08 |
| Special packing provisions (ADR) | : B4 |
| Mixed packing provisions (ADR) | : MP10 |
| Portable tank and bulk container instructions (ADR) | : T3 |
| Portable tank and bulk container special provisions (ADR) | : TP33 |
| Tank code (ADR) | : SGAN, L4BN |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Packages (ADR) | : V11 |
| Hazard identification number (Kemler No.) | : 80 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : 2X |

- Transport by sea

| | |
|---------------------------------|----------|
| Special provision (IMDG) | : 274 |
| Limited quantities (IMDG) | : 1 kg |
| Excepted quantities (IMDG) | : E2 |
| Packing instructions (IMDG) | : P002 |
| IBC packing instructions (IMDG) | : IBC08 |
| IBC special provisions (IMDG) | : B2, B4 |
| Tank instructions (IMDG) | : T3 |
| Tank special provisions (IMDG) | : TP33 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-B |
| Stowage category (IMDG) | : B |
| Segregation (IMDG) | : SG35 |
| MFAG-No | : 154 |

- Air transport

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E2 |
| PCA Limited quantities (IATA) | : Y844 |
| PCA limited quantity max net quantity (IATA) | : 5kg |
| PCA packing instructions (IATA) | : 859 |
| PCA max net quantity (IATA) | : 15kg |
| CAO packing instructions (IATA) | : 863 |
| CAO max net quantity (IATA) | : 50kg |
| Special provision (IATA) | : A3 |
| ERG code (IATA) | : 8L |

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- Inland waterway transport

| | |
|-----------------------------------|----------|
| Classification code (ADN) | : C6 |
| Special provisions (ADN) | : 274 |
| Limited quantities (ADN) | : 1 kg |
| Excepted quantities (ADN) | : E2 |
| Equipment required (ADN) | : PP, EP |
| Number of blue cones/lights (ADN) | : 0 |

- Rail transport

| | |
|---|---------------|
| Classification code (RID) | : C6 |
| Special provision (RID) | : 274 |
| Limited quantities (RID) | : 1kg |
| Excepted quantities (RID) | : E2 |
| Packing instructions (RID) | : P002, IBC08 |
| Special packing provisions (RID) | : B4 |
| Mixed packing provisions (RID) | : MP10 |
| Portable tank and bulk container instructions (RID) | : T3 |
| Portable tank and bulk container special provisions (RID) | : TP33 |
| Tank codes for RID tanks (RID) | : SGAN, L4BN |
| Transport category (RID) | : 2 |
| Special provisions for carriage – Packages (RID) | : W11 |
| Colis express (express parcels) (RID) | : CE10 |
| Hazard identification number (RID) | : 80 |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

BARIUM HYDROXIDE OCTAHYDRATE AR is not on the REACH Candidate List

BARIUM HYDROXIDE OCTAHYDRATE AR is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 3; WGK No 3303)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

| | |
|---------------------------|---|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H332 | Harmful if inhaled |
| C | Corrosive |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product