



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

BARIUM HYDROXIDE OCTAHYDRATE 98% AR

PRODUCT CODE : O-5042

CAS No : 12230-71-6

FORMULA : $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$

UN No : 3262

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

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

- 1.1 Product Name** : BARIUM HYDROXIDE OCTAHYDRATE 98% AR
Synonyms : Caustic baryte
CAS No. : 12230-71-6
HS Code : 2816 40 00
Chemical Formula : $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ BaH₂O₂·8H₂O Hill
Molecular Weight : 315.46 g/mol
Product Code : O-5042
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity, Inhalation (Category 4), H332
 Acute toxicity, Oral (Category 4), H302
 Skin corrosion, Dermal (Category 1B), H314

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H302 + H332
 H314

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

Precautionary statement(s)

P260
 P280

Do not breathe dusts or mists.
 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P301 + P312

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Barium oxide hydrate octahydrate
 Formula : $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ BaH₂O₂·8H₂O Hill
 Molecular weight : 315.46 g/mol
 CAS-No. : 12230-71-6
 EC-No. : 241-234-5
 Index-No. : 056-002-00-7

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Barium hydroxide CAS-No. 12230-71-6 EC-No. 241-234-5	Acute Tox. 4; Skin Corr. 1B; H332, H302, H314	<=100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with polyethylene glycol and afterwards with plenty of water. Take victim immediately to hospital. Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (GHS 05, 07, 08, 09, 10, 11, 12) and/or in section 11



4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Barium oxide, Not combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Air sensitive.

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure control

Appropriat engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: solid
Odour	No data available
Odour Threshold	No data available
pH	12.5 at 50 g/l at 20 °C
Melting point/freezingpoint	Melting point/range: 78 °C - lit.
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	2.180 g/cm ³
Water solubility	soluble
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

Bulk density	0.90 - 1.1 g/l
--------------	----------------

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Light metals

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Barium oxide

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

LD50 Oral - Rat - 550 mg/kg Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available (Barium hydroxide)

Serious eye damage/eye irritation

No data available (Barium hydroxide)

Respiratory or skin sensitisation

No data available (Barium hydroxide)

Germ cell mutagenicity

No data available (Barium hydroxide)

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available (Barium hydroxide)

Specific target organ toxicity - single exposure

No data available (Barium hydroxide)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available (Barium hydroxide)

Additional Information

RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea (Barium hydroxide)

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
BARIUM HYDROXIDE OCTAHYDRATE 98% AR

MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

SECTION 12: Ecological information**12.1 Toxicity**

No data 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 and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 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 chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 3262

IMDG: 3262

IATA: 3262

14.2 UN proper shipping name

ADR/RID: CORROSIVE SOLID, TOXIC, N.O.S. (BARIUM HYDROXIDE)

IMDG: CORROSIVE SOLID, TOXIC, N.O.S. (BARIUM HYDROXIDE)

IATA: CORROSIVE SOLID, TOXIC, N.O.S. (BARIUM HYDROXIDE)

14.3 Transport hazard class(es)

ADR/RID: 8(6.1)

IMDG: 8(6.1)

IATA: 8(6.1)

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BARIUM HYDROXIDE OCTAHYDRATE 98% AR



MSDS Number : 0061

Date : Aug 19th, 2024

Version : 1.0

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H302 + H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

Version : 1.0

Revision Date : August 19, 2024