

Barium hydroxide octahydrate

31127-100G

Version 1.3

Issuing date 12/19/2016

Revision Date 01/06/2023

Print Date 06/05/2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Barium hydroxide octahydrate

Number : 000000020789

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926
Germany

For further information, please contact: : PMTEU Product Stewardship
(49) 5137-999 0
SafetyDataSheet@Honeywell.com
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887
In Japan: +(81)-345209637

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Classification of the substance or mixture : Acute toxicity, Category 4, Oral
Acute toxicity, Category 4, Inhalation
Skin corrosion, Category 1A
Serious eye damage, Category 1

GHS Label elements, including precautionary statements

Symbol(s)



Signal word

: Danger

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

Precautionary statements : **Prevention:**
Do not breathe dust or mist.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Immediately call a POISON CENTER/ doctor.

Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification : Corrosive to the respiratory tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
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Barium hydroxide-8-hydrate
Barium hydroxide-8-hydrate

12230-71-6

100.00 %

4. FIRST AID MEASURES

- | | |
|--------------------|---|
| General advice | : First aider needs to protect himself.
Move out of dangerous area.
Immediately take off contaminated clothing and rinse body with plenty of water. |
| Inhalation | : In case of irritation when dust is inhaled, provide for plenty of fresh air.
Call a physician immediately. |
| Skin contact | : After contact with skin, wash immediately with plenty of water.
Call a physician immediately. |
| Eye contact | : Rinse thoroughly with plenty of water, also under the eyelids.
Protect unharmed eye.
Call a physician immediately. |
| Ingestion | : When swallowed, allow water to be drunk.
Do NOT induce vomiting.
Call a physician immediately. |
| Notes to physician | : Treat symptomatically. |

5. FIREFIGHTING MEASURES

- | | |
|---|---|
| Suitable extinguishing media | : Water spray
Foam
Carbon dioxide (CO2)
Dry powder |
| Specific hazards during firefighting | : The product itself does not burn.
Hazardous decomposition products formed under fire conditions. |
| Special protective equipment for firefighters | : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear. |
| Further information | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |

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6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures | : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Avoid dust formation.
Material can create slippery conditions.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing. |
| Environmental precautions | : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system. |
| Methods and materials for containment and cleaning up | : Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations. |

7. HANDLING AND STORAGE

Handling

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|-------------------------------|---|
| Precautions for safe handling | : Wear personal protective equipment.
Use only in well-ventilated areas.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing. |
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| Advice on protection against fire and explosion | : Normal measures for preventive fire protection. |
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Storage

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| Conditions for safe storage, including any incompatibilities | : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Protect from exposure to air/oxygen. |
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

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Appropriate engineering controls

Provide exhaust ventilation if dust is formed.

Individual protection measures, such as personal protective equipment

Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	: Latex gloves Gloves must be inspected prior to use. Replace when worn.
Eye protection	: Safety goggles
Skin and body protection	: Impervious clothing
Hygiene measures	: Keep working clothes separately. Separate rooms are required for washing, showering and changing clothes.
Protective measures	: Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Colour	: colourless
Odour	: odourless
Odour Threshold	: Note: No data available
pH	: Note: alkaline, (as aqueous solution)
Melting point/range	: 78 °C
Boiling point/boiling range	: Note: Decomposes on heating.

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Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapour pressure	: Note: No data available
Vapour density	: Note: No data available
Density	: ca. 2.180 g/cm ³ at 20 °C
Water solubility	: 947.0 g/l
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: Note: No decomposition if used as directed.
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 315.46 g/mol
Bulk density	: ca. 1,070 kg/m ³

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10. STABILITY AND REACTIVITY

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Exothermic reaction with strong acids.
Conditions to avoid	: Protect from atmospheric moisture and water. Corrodes metals in the presence of water or moisture.
Incompatible materials to avoid	: Acids
Hazardous decomposition products	: Fire may cause evolution of: Toxic metal oxide fumes

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact, Ingestion
Acute oral toxicity	: Note: Classification based on Annex VI of regulation 1272/2008/EC. : Acute toxicity estimate: 550 mg/kg Method: Calculation method
Acute inhalation toxicity	: Note: Classification based on Annex VI of regulation 1272/2008/EC. : Acute toxicity estimate: 1.5 mg/l Method: Calculation method
Acute dermal toxicity	: Note: No data available
Skin corrosion/irritation	: Note: Causes skin burns.
Serious eye damage/eye irritation	: Note: Causes eye burns.
Respiratory or skin sensitisation	: Note: Not classified due to data which are conclusive although insufficient for classification.
Repeated dose toxicity	: Note: No data available

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Germ cell mutagenicity	: Note: Not classified due to data which are conclusive although insufficient for classification.
Carcinogenicity	: Species: not specified Note: Not classified due to data which are conclusive although insufficient for classification.
Reproductive toxicity	: Species: not specified Note: Not classified due to inconclusive data.

12. ECOLOGICAL INFORMATION**Aquatic and ecotoxicity**

Toxicity to fish	: Note: Not classified due to data which are conclusive although insufficient for classification.
Toxicity to daphnia and other aquatic invertebrates	: Note: Not classified due to data which are conclusive although insufficient for classification.
Toxicity to algae	: Note: Not classified due to data which are conclusive although insufficient for classification.

Persistence and degradability

Biodegradability	: Note: The methods for determining biodegradability are not applicable to inorganic substances.
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Other adverse effects

Additional ecological information	: Should not be released into the environment. Neutralisation will reduce ecotoxic effects.
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13. DISPOSAL CONSIDERATIONS

Disposal methods : In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN/ID No. : UN 3262
Description of the goods : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
(BARIUM HYDROXIDE)
Class : 8
Packing group : II
Classification Code : C6
Hazard Identification Number : 80
Labels : 8

IATA

UN/ID No. : UN 3262
Description of the goods : Corrosive solid, basic, inorganic, n.o.s.
(Barium hydroxide)
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 863
Packing instruction (passenger aircraft) : 859
Packing instruction (passenger aircraft) : Y844

IMDG

UN/ID No. : UN 3262
Description of the goods : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
(BARIUM HYDROXIDE)
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : no

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15. REGULATORY INFORMATION**National regulatory information**

Vessel Safety Law : Corrosive substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
JP VSL

Aviation Law : Corrosive substances (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
JP AVL

Substances Subject to be :
Notified Names Threshold Concentration: 1 % wt 449
JP MSDSD

Substances Subject to be : Article 18
Indicated Names Threshold limits: 1 % wt 449
JPISHL LR

Fire Service Law : Not relevant

Japan. ISHL Hazardous : Listed
Substances Subject to Barium hydroxide-8-hydrate 12230-71-6
Labeling Requirements

(ISHL Enforcement Order,
Article 18, Art. 30 & 31), as
amended

Japan. SDS and Risk : Listed
Assessment Requirements Barium hydroxide-8-hydrate 12230-71-6
(ISHL Art. 57-2 and 57-3,
Enforcement Order Art. 18-2,
Enforcement Rule Art. 34-2
and 34-2-2), as amended

Poisonous and Deleterious : Deleterious substance not for pharmaceutical use
Substances Control Law 79
Listed
Barium hydroxide-8-hydrate 12230-71-6

Other international regulations

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Notification status

US. Toxic Substances
Control Act : On TSCA Inventory

Australia. Inventory of
Industrial Chemicals (AIIC),
as amended : On the inventory, or in compliance with the inventory

Canada. Canadian
Environmental Protection Act
(CEPA). Domestic
Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals
Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of
Chemicals and Chemical
Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing
Chemical Substances
(IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of
Chemicals (NZIoC), as
published by ERMA New
Zealand : On the inventory, or in compliance with the inventory

Taiwan Chemical Substance
Inventory (TCSI) : On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

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Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group