

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: 01680 Issue date: 1/9/2024 Revision date: 1/9/2024 Supersedes version of: 3/14/2019 Version: 1.0

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

1.1. Product identifier

Product form Substance

Trade name BARIUM CHLORIDE DIHYDRATE AR/ACS

EC Index-No. 056-004-00-8 EC-No. 233-788-1 CAS-No. 10326-27-9 Product code 01680

Type of product Inorganic compound

BaCl2.2H2O Formula

Chemical structure

 H_2O

CI-Ba-CI

 H_2O

Synonyms : Barium dichloride Dihydrate, Barium muriate

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

1.2.1. Relevant identified uses

Industrial/Professional use spec · Industrial

For professional use only 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]

Acute toxicity (oral), Category 3 H301 Acute toxicity (inhal.), Category 4 H332

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Toxic if swallowed. Harmful if inhaled.

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2.2. Label elements

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

Hazard pictograms (CLP)



GHS06

Signal word (CLP)

: Danger Hazard statements (CLP)

: H301 - Toxic if swallowed. H332 - Harmful if inhaled.

Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

> P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

Nordic countries regulation

Denmark

MAL code : 00-6 (Executive Order No. 301 from 1993)

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type Mono-constituent

Name	Product identifier	%
BARIUM CHLORIDE DIHYDRATE	CAS-No.: 10326-27-9 EC-No.: 233-788-1 EC Index-No.: 056-004-00-8	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell.

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

plenty of water.

First-aid measures after eye contact If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Obtain emergency medical attention. Call a physician immediately.

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

Symptoms/effects after inhalation : Harmful if inhaled.

Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in

combination with tight clothing.

Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed.

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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

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard. Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent

material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid breathing

dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective

equipment as required. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.

Methods for cleaning up : Mechanically recover the product. Soak up spills with inert solids, such as clay or

diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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Precautions for safe handling : Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe

vapours. Avoid dust formation. Use only outdoors or in a well-ventilated area. Avoid

breathing dust/fume/gas/mist/vapours/spray.

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. Always

wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear a mask

Hand protection:

Protective gloves

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8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask. [In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Colour : White.

Appearance : Crystalline powder or crystals. Chunks.

Molecular mass 244.28 g/mol Odourless. Odour Odour threshold : Not available 960 °C Melting point Freezing point : Not applicable Boiling point : 1560 °C Flammability : Non flammable. Lower explosion limit : Not applicable Upper explosion limit : Not applicable Flash point : Not applicable : Not applicable Auto-ignition temperature Decomposition temperature : Not available : 5.2 - 8.2 at 25 °C

pH solution concentration : 5 %

Viscosity, kinematic : Not applicable

Solubility : Water: 35.8 g/100ml at 20 °C - soluble

Partition coefficient n-octanol/water (Log Kow)

Not available
Vapour pressure

Vapour pressure at 50°C

Density

Relative density

Relative vapour density at 20°C

Particle size

Not available

Not available

Not available

Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Air contact. Direct sunlight. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Toxic if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.
Skin corrosion/irritation : Not classified

pH: 5.2 - 8.2 at 25 °C

Serious eye damage/irritation : Not classified

pH: 5.2 - 8.2 at 25 °C

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and

symptoms

: Toxic if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

12.2. Persistence and degradability

BARIUM CHLORIDE DIHYDRATE AR/ACS (10326-27-9)

Persistence and degradability Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation. Disposal must be done

according to official regulations.Do not re-use empty containers.

Additional information : Do not re-use empty containers. Ecological information : Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 1564

 UN-No. (IMDG)
 : UN 1564

 UN-No. (IATA)
 : UN 1564

 UN-No. (ADN)
 : UN 1564

 UN-No. (RID)
 : UN 1564

14.2. UN proper shipping name

Proper Shipping Name (ADR) : BARIUM COMPOUND, N.O.S.
Proper Shipping Name (IMDG) : BARIUM COMPOUND, N.O.S.
Proper Shipping Name (IATA) : Barium compound, n.o.s.
Proper Shipping Name (ADN) : BARIUM COMPOUND, N.O.S.
Proper Shipping Name (RID) : BARIUM COMPOUND, N.O.S.

Transport document description (ADR) : UN 1564 BARIUM COMPOUND, N.O.S. (BARIUM CHLORIDE DIHYDRATE), 6.1, III, (E)

Transport document description (IMDG) : UN 1564 BARIUM COMPOUND, N.O.S., 6.1, III

Transport document description (IATA) : UN 1564 Barium compound, n.o.s. (BARIUM CHLORIDE DIHYDRATE), 6.1, III

Transport document description (ADN)

: UN 1564 BARIUM COMPOUND, N.O.S., 6.1, III

Transport document description (RID)

: UN 1564 BARIUM COMPOUND, N.O.S., 6.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1
Danger labels (ADR) : 6.1

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IMDG

Transport hazard class(es) (IMDG) : 6.1 Danger labels (IMDG) 6.1



IATA

Transport hazard class(es) (IATA) : 6.1 Danger labels (IATA) : 6.1



ADN

Transport hazard class(es) (ADN) : 6.1 Danger labels (ADN) : 6.1



RID

Transport hazard class(es) (RID) : 6.1 Danger labels (RID) : 6.1



14.4. Packing group

: III Packing group (ADR) Packing group (IMDG) : III Packing group (IATA) : III : III Packing group (ADN) Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : T5

Special provisions (ADR) : 177, 274, 513, 587

Limited quantities (ADR) : 5kg Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3 Mixed packing provisions (ADR) : MP10 Portable tank and bulk container instructions (ADR) : T1 Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAH, L4BH Tank special provisions (ADR) : TU15, TE19

Vehicle for tank carriage : AT

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Transport category (ADR) : 2

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7 Special provisions for carriage - Loading, unloading : CV13, CV28

and handling (ADR)

Special provisions for carriage - Operation (ADR) : \$9 Hazard identification number (Kemler No.) : 60

Orange plates :

60 1564

Tunnel restriction code (ADR) : E EAC code : 2Z

Transport by sea

Special provisions (IMDG) : 177, 223, 274

Limited quantities (IMDG) : 5 kg : E1 Excepted quantities (IMDG) : P002, LP02 Packing instructions (IMDG) IBC08 IBC packing instructions (IMDG) IBC special provisions (IMDG) B3 Tank instructions (IMDG) T1 Tank special provisions (IMDG) **TP33** EmS-No. (Fire) F-A EmS-No. (Spillage) S-A Stowage category (IMDG) Α

Properties and observations (IMDG) : White powder, lumps or crystals. Toxic if swallowed, by skin contact or by inhalation.

MFAG-No : 154

Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y645 PCA limited quantity max net quantity (IATA) : 10kg PCA packing instructions (IATA) : 670 PCA max net quantity (IATA) : 100kg CAO packing instructions (IATA) : 677 CAO max net quantity (IATA) : 200kg Special provisions (IATA) : A3, A82 ERG code (IATA) : 6L

Inland waterway transport

Classification code (ADN) : T5

Special provisions (ADN) : 177, 274, 513, 587, 802

Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : T5

Special provisions (RID) : 177, 274, 513, 587

Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : B3

Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1

Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAH, L4BH Special provisions for RID tanks (RID) : TU15
Transport category (RID) : 2

Special provisions for carriage – Bulk (RID) : VC1, VC2, AP7

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Special provisions for carriage - Loading, unloading : CW13, CW28, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE11 Hazard identification number (RID) : 60

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances

Hazardous to Waters (AwSV).

Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must

be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the

shipping route (according to § 10).

The substance is not listed

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

52VV-lijst vali reprotoxische stolleri – Oftwikkeling . The substance is not ils

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Denmark

MAL code : 00-6 (Executive Order No. 301 from 1993)

Danish National Regulations Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acre	Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
BLV	Biological limit value		
BOD	Biochemical oxygen demand (BOD)		
COD	Chemical oxygen demand (COD)		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC-No.	European Community number		
EC50	Median effective concentration		
EN	European Standard		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
РВТ	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
CAS-No.	Chemical Abstract Service number		

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Abbreviations and acronyms:	
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
H301	Toxic if swallowed.	
H332	Harmful if inhaled.	

Safety Data Sheet (SDS), EU

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.