

Safety Data Sheet

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

Reference number: 01711

Issue date: 1/10/2024 Revision date: 1/10/2024 Supersedes version of: 4/28/2016 Version: 1.0

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

1.1. Product identifier

Product form : Substance

: BARIUM PERCHLORATE ANHYDROUS EXTRA PURE Trade name

FC Index-No. · 017-007-00-X EC-No. : 236-710-4 CAS-No. : 13465-95-7 Product code : 01711

Type of product : Inorganic compound

Formula : BaCl2O8

Chemical structure

O CISO CISO

: Barium diperchlorate Synonyms

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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Oxidising Solids, Category 1 H271 Acute toxicity (oral), Category 4 H302 Acute toxicity (inhal.), Category 4 H332

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

Adverse physicochemical, human health and environmental effects

Harmful if inhaled. Harmful if swallowed.

2.2. Label elements

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

Hazard pictograms (CLP)



Safety Data Sheet

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

GHS03 GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H271 - May cause fire or explosion; strong oxidiser.

H302+H332 - Harmful if swallowed or if inhaled.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P220 - Keep away from clothing and other combustible materials. P264 - Wash hands, forearms and face thoroughly after handling.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 PERCHLORATE ANHYDROUS	CAS-No.: 13465-95-7 EC-No.: 236-710-4 EC Index-No.: 017-007-00-X	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

First-aid measures after ingestion

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. If breathing is difficult, remove victim to fresh air and keep at rest in a

position 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. Rinse skin with water/shower. Rinse immediately contaminated clothing and skin with plenty of water before

water/shower. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a

doctor if you feel unwell.

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 : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Safety Data Sheet

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

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 : May cause fire or explosion; strong oxidiser.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of

burns and injuries.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk

of explosion. Do not enter fire area without proper protective equipment, including

respiratory protection.

Protection during firefighting : 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 : No open flames. No smoking. 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. No open flames, no sparks, and

no smoking. 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.

Notify authorities if product enters sewers or public waters.

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 : Hazardous waste due to potential risk of explosion.

1/10/2024 (Revision date) EN (English) 3/12

Safety Data Sheet

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

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Take precautionary measures

against static discharge. Provide good ventilation in process area to prevent formation of vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. 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 : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep in fireproof place. Keep container tightly closed.

Incompatible materials : Heat sources. combustible materials.

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 fire/flame resistant/retardant clothing.

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. Wear fire/flame resistant/retardant clothing.

Safety Data Sheet

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

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

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 to off white.

Appearance : Powder. Molecular mass : 336.24 g/mol Odour : Odourless. Odour threshold : Not available : 505 °C Melting point Freezing point : Not applicable : Not available Boiling point Flammability : Non flammable.

Oxidising properties : The substance or mixture is classified as oxidizing with the subcategory 1. May cause fire

or explosion; strong oxidiser.

Lower explosion limit : Not applicable
Upper explosion limit : Not applicable
Flash point : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : > 700 °C
pH : 5.6 at 20 °C
pH solution concentration : 10 %

Viscosity, kinematic : Not applicable

Solubility : Water: 66.48 g/100ml at 25 °C - Soluble in water

Partition coefficient n-octanol/water (Log Kow)

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 available

Not available

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

May cause fire or explosion; strong oxidiser.

Safety Data Sheet

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

10.2. Chemical stability

May cause fire or explosion; strong oxidiser.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sparks. Open flame. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

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

pH: 5.6 at 20 °C

Serious eye damage/irritation : Not classified

pH: 5.6 at 20 °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

BARIUM PERCHLORATE ANHYDROUS EXTRA PURE (13465-95-7)

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

: Harmful if swallowed.

symptoms

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.

 $\label{thm:local_equation} \mbox{Hazardous to the aquatic environment, short-term}$

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

n : Not classified

(chronic)

Safety Data Sheet

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

12.2. Persistence and degradability

BARIUM PERCHLORATE ANHYDROUS EXTRA PURE (13465-95-7)

Persistence and degradability Rapidly degradable

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. 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.

Additional information : Hazardous waste due to potential risk of explosion. Do not re-use empty containers.

SECTION 14: Transport information

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

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 1447

 UN-No. (IMDG)
 : UN 1447

 UN-No. (IATA)
 : UN 1447

 UN-No. (ADN)
 : UN 1447

 UN-No. (RID)
 : UN 1447

14.2. UN proper shipping name

Proper Shipping Name (ADR) : BARIUM PERCHLORATE, SOLID Proper Shipping Name (IMDG) : BARIUM PERCHLORATE, SOLID

Proper Shipping Name (IATA) : Barium perchlorate, solid

Proper Shipping Name (ADN) : BARIUM PERCHLORATE, SOLID Proper Shipping Name (RID) : BARIUM PERCHLORATE, SOLID

Transport document description (ADR) : UN 1447 BARIUM PERCHLORATE, SOLID, 5.1 (6.1), II, (E)
Transport document description (IMDG) : UN 1447 BARIUM PERCHLORATE, SOLID, 5.1 (6.1), II

Transport document description (IATA) : UN 1447 Barium perchlorate, solid, 5.1 (6.1), II

Transport document description (ADN) : UN 1447 BARIUM PERCHLORATE, SOLID, 5.1 (6.1), II
Transport document description (RID) : UN 1447 BARIUM PERCHLORATE, SOLID, 5.1 (6.1), II

1/10/2024 (Revision date) EN (English) 7/12

Safety Data Sheet

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

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 5.1 (6.1) Danger labels (ADR) : 5.1, 6.1



IMDG

Transport hazard class(es) (IMDG) : 5.1 (6.1) Danger labels (IMDG) : 5.1, 6.1



IATA

Transport hazard class(es) (IATA) : 5.1 (6.1)
Danger labels (IATA) : 5.1, 6.1



ADN

Transport hazard class(es) (ADN) : 5.1 (6.1) Danger labels (ADN) : 5.1, 6.1



RID

Transport hazard class(es) (RID) : 5.1 (6.1) Danger labels (RID) : 5.1, 6.1



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

14.6. Special precautions for user

Overland transport

Classification code (ADR) : OT2 Limited quantities (ADR) : 1kg

Safety Data Sheet

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

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P002, IBC06
Mixed packing provisions (ADR) : MP2
Portable tank and bulk container instructions (ADR) : T3
Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAN
Tank special provisions (ADR) : TU3
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V11
Special provisions for carriage - Loading, unloading : CV24, CV28

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S23 Hazard identification number (Kemler No.) : 56

Orange plates :

56 1447

Tunnel restriction code (ADR) : E EAC code : 1Y

Transport by sea

Limited quantities (IMDG) : 1 kg Excepted quantities (IMDG) : E2 Packing instructions (IMDG) P002 IBC packing instructions (IMDG) IBC06 IBC special provisions (IMDG) B21 Tank instructions (IMDG) . T3 Tank special provisions (IMDG) TP33 EmS-No. (Fire) : F-H EmS-No. (Spillage) : S-Q Stowage category (IMDG) : A

Segregation (IMDG) : SG38, SG49

Properties and observations (IMDG) : White crystals or powder, soluble in water. Reacts vigorously with sulphuric acid. Reacts

fiercely with cyanides when heated or by friction. May form explosive mixtures with combustible material, powdered metals or ammonium compounds. These mixtures are sensitive to friction and are liable to ignite. When involved in a fire may cause an

explosion. Toxic if swallowed, by skin contact or by dust inhalation.

MFAG-No : 141

Air transport

PCA Excepted quantities (IATA) : E2 : Y543 PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) : 1kg PCA packing instructions (IATA) : 558 : 5kg PCA max net quantity (IATA) CAO packing instructions (IATA) : 562 CAO max net quantity (IATA) 25kg ERG code (IATA) 5P

Inland waterway transport

Classification code (ADN) : OT2
Special provisions (ADN) : 802
Limited quantities (ADN) : 1 kg
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 2

Rail transport

Classification code (RID) : OT2 Limited quantities (RID) : 1kg

Safety Data Sheet

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

Excepted quantities (RID) : E2

Packing instructions (RID) : P002, IBC06
Mixed packing provisions (RID) : MP2
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAN
Special provisions for RID tanks (RID) : TU3
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W11

Special provisions for carriage - Loading, unloading : CW24, CW28

and handling (RID)

Colis express (express parcels) (RID) : CE10 Hazard identification number (RID) : 56

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) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 306).

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

be observed: Basic requirements for the implementation of the submission (according to $\S~8$

paragraph 1, 3 and 4).

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

Safety Data Sheet

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

SZW-lijst van mutagene stoffen

 $SZW\text{-}lijst\ van\ reprotoxische\ stoffen-Borstvoeding$

SZW-lijst van reprotoxische stoffen –

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling

: The substance is not listed: The substance is not listed: The substance is not listed

: The substance is not listed

Denmark

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 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	
PBT	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)	

Safety Data Sheet

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

Abbreviations and acronyms:	
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
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. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
Ox. Sol. 1	Oxidising Solids, Category 1

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.