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MATERIAL SAFETY DATA SHEET

Product Name	BARIUM PERCHLORATE AR (ANHYDROUS)
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1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : BARIUM PERCHLORATE AR (ANHYDROUS)

Product code : B0029

Identification of the product: BARIUM PERCHLORATE AR (ANHYDROUS)

CAS No : 13465-95-7

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

againstUse: Industrial. For professional use only.

1.3 Details of the supplier of the safety data sheet

Company identification: CYNOR

National industry, Pipodra GIDC, Surat-394110, Gujarat, India.

Email: cynorlaboratories@gmail.com **Mobile No.:** +91 8799070507

2. Hazards identification -DSD

2.1 Classification of the substance or mixture

Classification EC 67/548 or EC

1999/45 Classification : O; R9

Xn; R20/22

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Inhalation - Category 4 - Warning (CLP :

Acute Tox. 4)H332

Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302

Physical hazards : Oxidizing solids - Category 1 - Danger (CLP : Ox. Sol. 1) H271

2.2 Label element

Labelling EC 67/548 or EC 1999/45Symbol(s) :

O : Oxidizing

Xn : Harmful



R Phrase(s) : R9 : Explosive when mixed with combustible material.R20/22 : Harmful by inhalation and if swallowed.

S Phrase(s) : S2 : Keep out of the reach of children. S27 : Take off immediately all contaminated clothing.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words : Danger

Hazard statements : H271 : May cause fire or explosion;
strong oxidizer.H302 : Harmful if swallowed.

H332 : Harmful if inhaled.

Precautionary statements

• **General :** P102: Keep out of reach of children.P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

• **Prevention :** P210: Keep away from heat, sparks, open flames or hot surfaces. – Nonsmoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.P220: Keep away from clothing - combustible materials.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• **Response :** P371+P380+P375: In case of major fire and large quantities : Evacuate area.Fight fire remotely due to the risk of explosion.

P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P306+P360: IF ON CLOTHING : Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P370+P378: In case of fire: Use for extinction.

• **Disposal considerations :** P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3 Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation: Barium perchlorate

CAS No : 13465-95-7

Substance.

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1 Description of first aid measures

Inhalation : Assure fresh air breathing. Allow the victim to rest. Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : IF ON CLOTHING : Rinse immediately contaminated clothing

and skin with plenty of water before removing clothes.

Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Ingestion : Obtain emergency medical attention. Call a POISON CENTER or doctor if you feel unwell. Do NOT induce vomiting. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Danger of serious damage to health by prolonged exposure through inhalation.

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

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media : Do not use extinguishing media containing water.

Surrounding fires: Use water spray or fog for cooling exposed containers

5.2 Specific hazards arising from the substance or mixture

Flammable class : May cause fire or explosion; strong oxidizer.

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3 Advice for fire-fighters

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

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection. Ventilate area.

Special precautions : No naked lights. No smoking. May cause fire or explosion; strong oxidizer.

6.2 Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters.

Notify authorities if product enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust.

6.4 Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1 Precautions for safe handling

Handling : Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Take any precaution to avoid mixing with combustibles. Avoid breathing dust, fume, gas, mist, vapours, spray.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed.

7.2 Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use. Keep in fireproof place.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources. Combustible material.

7.3 Specific end use(s)

No additional information available

8. Exposure controls/personal protection

8.1 Control parameter

No additional information available

8.2 Exposure control

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke. Wear fire, flame resistant, retardant clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state at 20 °C : Solid.

Odour threshold : No data available.

pH value : Not applicable.

Melting point [°C] : 505 °C

Decomposition point [°C] : N/A

Critical temperature [°C] : N/A

Auto-ignition temperature [°C] : N/A

Flammability (solid, gas) : N/A

Flash point [°C] : 21 °C

Boiling point [°C] : N/A

Initial boiling point [°C] : N/A

Final boiling point [°C] : N/A

Evaporation rate : N/A

Vapour pressure [20°C] : N/A

Vapour pressure mm/Hg : N/A

Vapour density : N/A

Density [g/cm³] : 0.908

Relative density, gas (air=1) : N/A

Relative density, liquid (water=1) : N/A

Solubility in water [% weight] : Soluble in water

Solubility in water : N/A

Log Pow octanol / water at 20°C : No data available.

Solubility : N/A

Viscosity at 40°C [mm²/s] : N/A

9.2 Other information

Explosive properties : N/A

Explosion limits - upper [%] : N/A

Explosion limits - lower [%] : N/A

Oxidising properties : May cause fire or explosion; strong oxidizer.

10. Stability and reactivity

10.1 Reactivity

No additional information available

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. Extremely high or low temperatures. Heat. Sparks. Overheating. Open flame

10.5 Incompatible materials

Strong acids. Strong bases.

10.6 Hazardous decomposition products

Fumes. Carbon monoxide. Carbon dioxide

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

• **Inhalation :** Harmful if inhaled.

• **Dermal :** Based on available data, the classification criteria are not met.

• **Ingestion :** Harmful if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1 Toxicity

No additional information available

12.2 Persistence – degradability

Biodegradable

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

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects

Avoid release to the environment

13. Disposal considerations

13.1 Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Hazardous waste due to potential risk of explosion. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

14.1 Land transport (ADR-RID)

Proper shipping name : BARIUM PERCHLORATE

UN N° : 1447

H.I. nr : 56

ADR - Class : 5.1

Labelling - Transport : 5.1 : Oxidizing substances. 6.1 : Toxic substances.

ADR - Classification code : OT2

ADR - Group : II

ADR - Packing instructions : P002

ADR - Limited Quantity : 1 KG

ADR - Tunnel code : E : Passage forbidden through tunnels of category E.

14.2 Sea transport (IMDG) [English only]

Proper shipping name : BARIUM PERCHLORATE

UN N° : 1447

IMO-IMDG - Class or division : 5.1 : Oxidizing substances. (6.1 : Toxic substances.)

IMO-IMDG - Packing group : II

IMO- IMDG - Packing instructions : P002

IMO-IMDG - Limited quantities : 1 kg

IMO-

14.3 Air transport (ICAO-IATA) [English only]

Proper shipping name : BARIUM PERCHLORATE

UN N° : 1447



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IATA - Class or division : 5.1 : Oxidizing substances. (6.1 : Toxic substances.)

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 558

instruction

- Passenger and Cargo - Maximum : 5 kg

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 562

- Cargo only - Maximum Quantity/ : 25 kg

Packing

IATA - Limited Quantities : 1 kg

15. Regulatory information

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

Safety, health and environmental : Ensure all national/local regulations are observed.

regulations/legislation specific for the substance or mixture

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2 Chemical safety assessment

No additional information available

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

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