



## CYNOR LABORATORY

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### MATERIAL SAFETY DATA SHEET

Product Name	SODIUM BOROHYDRIDE
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#### **1. Identification of the substance/mixture and of the company/undertaking**

##### **1.1. Product identifier**

Trade name : SODIUM BOROHYDRIDE

Product code : S0120

Identification of the product : SODIUM BOROHYDRIDE

CAS No :16940-66-2

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

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#### **2. Hazards identification -DSD**

##### **2.1. Classification of the substance or mixture**

Classification EC 67/548 or EC 1999/45

Classification : F; R15

T; R24/25

C; R34

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

**hazards :** Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314 Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311

Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301 **Physical**

**hazards :** Substances and mixtures, which in contact with water, emit flammable gases -

Category 1 - Danger (CLP : Water-react. 1) H260

##### **2.2. Label elements**

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

F : Highly flammable

T : Toxic



**R Phrase(s) :** R15 : Contact with water liberates highly flammable gases.

R24/25 : Toxic in contact with skin and if swallowed.

R34 : Causes burns.

R35 : Cause severe burns.

**S Phrase(s)** : S14 : Keep away from...(Incompatible material to be indicated by the manufacturer).

S22 : Do not breathe dust.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

S43 : In case of fire, use .

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

**Labelling Regulation EC 1272/2008 (CLP)**

**Hazard pictograms**



**Signal words** : Danger

**Hazard statements** : H260 : In contact with water releases flammable gases which may ignite spontaneously.

H314 : Causes severe skin burns and eye damage.

H301 : Toxic if swallowed.

H311 : Toxic in contact with skin.

**Precautionary statements**

• **Prevention** : P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232: Handle under inert gas. Protect from moisture.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

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

• **Response** : P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

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

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

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated



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clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P335+P334: Brush off loose particles from skin. Immerse in cool water, wrap in wet bandages.

P361: Remove immediately all contaminated clothing.

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

- **Storage** : P402+P404: Store in a dry place. Store in a closed container.

- P405: Store locked up.

- **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** : SODIUM BOROHYDRIDE

CAS No :16940-66-2

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** : Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing.

**Skin contact** : Immerse in cool water, wrap in wet bandages. Brush off loose particles from skin. Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

**Eye contact** : Immediately call a POISON CENTER or doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

**Ingestion** : Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Rinse mouth. Do NOT induce vomiting.

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

**relating to use** : Causes severe skin burns and eye damage.

Repeated exposure to this material can result in absorption through skin causing significant health hazard. Swallowing a small quantity of this material will result in serious health hazard.



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**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. Sand.

**Unsuitable extinguishing media :** Do not use a heavy water stream.

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

#### **5.2. Special hazards arising from the substance or mixture**

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

**Thermal decomposition generates :** Corrosive vapours.

#### **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.

### **6. Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures For emergency responders :** Equip cleanup crew with proper protection. Ventilate area.

**For non-emergency personnel :** Evacuate unnecessary personnel.

#### **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**

**Clean up methods :** On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

#### **6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

### **7. Handling and storage**

#### **7.1. Precautions for safe handling**

**Handling :** Do not breathe dust, fume, gas, mist, vapours, spray. Wash contaminated clothing before reuse. Protect from moisture. Handle under inert gas. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from any possible contact with water, because of violent reaction and possible flash fire.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

**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 away from any possible contact with water, because of violent reaction and possible flash fire. Protect from moisture.

**Storage regulation** : Comply with applicable regulations.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

**7.3. Specific end use(s)**

**Specific end use(s)** : None.

**8. Exposure controls/personal protection**

**8.1. Exposure controls**

**Personal protection** : Avoid all unnecessary exposure.

- **Respiratory protection** : Wear approved mask.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **Others** : When using, do not eat, drink or smoke.

**8.2. Control parameters**

**Occupational Exposure Limits** : No data available.

**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]** : 400 °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]** : N/A

**Boiling point [°C]** : 400°C

**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 : 1,3  
Density [g/cm<sup>3</sup>] : 1,074  
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 [mm<sup>2</sup>/s] : N/A

#### **9.2. Other information**

Explosive properties : N/A  
Explosion limits - upper [%] : N/A  
Explosion limits - lower [%] : 3,02%  
Oxidising properties : No data available.

### **10. Stability and reactivity**

#### **10.1. Reactivity**

Reactivity : Not established.

#### **10.2. Chemical stability**

Chemical stability : Stable under recommended storage conditions.

#### **10.3. Possibility of hazardous reactions**

Hazardous reactions : In contact with water releases flammable gases which may ignite spontaneously.

#### **10.4. Conditions to avoid**

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

#### **10.5. Incompatible materials**

Materials to avoid : Strong acids. Strong bases.

#### **10.6. Hazardous decomposition products**

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

### **11. Toxicological information**

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

- **Inhalation** : Based on available data, the classification criteria are not met.
- **Dermal** : Toxic in contact with skin.
- **Ingestion** : Toxic if swallowed.

**Corrosion** : Causes severe skin burns and eye damage.

**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**

**Toxicity information** : Not established.

**12.2. Persistence - degradability** Persistence - degradability : Biodegradable.

### **12.3. Bioaccumulative potential**

**Bioaccumulative potential** : Not established.

### **12.4. Mobility in soil**

**Mobility in soil** : Not established.

### **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**

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

**Special precautions** : Hazardous waste due to toxicity.

## **14. Transport information**

### **14.1. Land transport (ADR-RID)**

**Proper shipping name** : SODIUM BOROHYDRIDE

**UN N°** : 1426

**H.I. nr** : --

**ADR - Class** : 4.3



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**Labelling - Transport : 4.3 : Contact with water liberates highly flammable gases.**

**ADR - Classification code : W2**

**ADR - Group : I**

**ADR - Packing instructions : P403**

**ADR - Limited Quantity : 0**

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

### **14.2. Sea transport (IMDG) [English only]**

**Proper shipping name : SODIUM BOROHYDRIDE**

**UN N° : 1426**

**IMO-IMDG - Class or division : 4.3 : Contact with water liberates highly flammable gases.**

**IMO-IMDG - Packing group : I**

**IMO- IMDG - Packing instructions : P403**

**IMO-IMDG - Limited quantities : None**

**IMO-IMDG - Marine pollution : No**

**EMS-Nr : F-G S-O**

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

**Proper shipping name : SODIUM BOROHYDRIDE**

**UN N° : 1426**

**IATA - Class or division : 4.3 : Contact with water liberates highly flammable gases.**

**IATA - Packing group : I**

**IATA - Passenger and Cargo Aircraft : NOT ALLOWED**

**IATA - Cargo only : ALLOWED**

**- Cargo only - Packing instruction : 487**

**- Cargo only - Maximum Quantity/ : 15 kg**

**Packing**

**ERG-Nr : 4W**

## **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**

**Chemical Safety Assessment :** It has not been carried out.





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### **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.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

### **End of document**

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