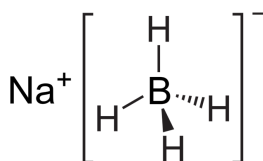


## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Substance  
Trade name : SODIUM BOROHYDRIDE EXTRA PURE  
EC-No. : 241-004-4  
CAS-No. : 16940-66-2  
Product code : 05800  
Formula : NaBH<sub>4</sub>  
Chemical structure :



Synonyms : Sodium tetrahydridoborate

### 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  
Use of the substance/mixture : Catalyst

#### 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](mailto:info@lobachemie.com) - [www.lobachemie.com](http://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]

Substances and Mixtures which, in contact with water, emit flammable gases, Category 1	H260
Acute toxicity (oral), Category 3	H301
Acute toxicity (dermal), Category 3	H311
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Full text of H- and EUH-statements: see section 16	

#### Adverse physicochemical, human health and environmental effects

In contact with water releases flammable gases which may ignite spontaneously. Toxic in contact with skin. Toxic if swallowed. Causes severe skin burns and eye damage.

# SODIUM BOROHYDRIDE EXTRA PURE

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 2.2. Label elements

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

Hazard pictograms (CLP)



GHS02

GHS05

GHS06

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H260 - In contact with water releases flammable gases which may ignite spontaneously.  
H301+H311 - Toxic if swallowed or in contact with skin.  
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P223 - Do not allow contact with water.  
P231+P232 - Handle and store contents under inert gas. Protect from moisture.  
P280 - Wear protective clothing, eye protection, face protection, protective gloves.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P370+P378 - In case of fire: Use media other than water to extinguish.

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: Mono-constituent

Name

: SODIUM BOROHYDRIDE

CAS-No.

: 16940-66-2

EC-No.

: 241-004-4

### 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. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact

: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing. Wash with plenty of water/.... Specific measures (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. Rinse skin with water/shower. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. Call a physician immediately.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Call a physician immediately.

First-aid measures after ingestion

: Rinse mouth. Immediately call a POISON CENTER/doctor. Specific treatment (see supplemental first aid instruction on this label). Do NOT induce vomiting. Call a physician immediately. Do not induce vomiting.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	: Toxic in contact with skin. Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Toxic if swallowed. Burns.

### 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	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ). Dry powder. Foam.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.

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

Fire hazard	: In contact with water releases flammable gases which may ignite spontaneously.
Explosion hazard	: Explosion risk in case of fire.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapours/spray.
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#### 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.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Mechanically recover the product. Large spills: scoop solid spill into closing containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
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	: Do not allow contact with water.
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# SODIUM BOROHYDRIDE EXTRA PURE

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Precautions for safe handling	: Ensure good ventilation of the work station. Protect from moisture. Handle under inert gas. Do not breathe dust/fume/gas/mist/vapours/spray. Do not allow contact with water. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Comply with applicable regulations.
Storage conditions	: Store in a dry place. Protect from moisture. Store in a closed container. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials	: Do not allow contact with water.

### 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 symbol(s):**



##### 8.2.2.1. Eye and face protection

**Eye protection:**

Chemical goggles or safety glasses

##### 8.2.2.2. Skin protection

**Hand protection:**

Protective gloves

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**

Wear appropriate mask

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### 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
Appearance	: Hygroscopic. Crystals.
Molecular mass	: 37.83 g/mol
Colour	: White.
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 360 °C (solw decomposition) at ca.1.013 hPa - OECD Test Guideline
Freezing point	: Not applicable
Boiling point	: > 400 °C at ca.1.013 hPa - OECD Test Guideline
Flash point	: 69 °C
Auto-ignition temperature	: > 400 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: In contact with water releases flammable gases which may ignite spontaneously.
Vapour pressure	: < 1 hPa (25 °C)
Relative vapour density at 20 °C	: 1.3
Relative density	: No data available
Density	: 1.07 g/cm <sup>3</sup> at 20°C
Solubility	: Soluble in ammonia. Soluble in pyridine. Water: 550 g/l Soluble in water
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 3.02 vol %

### 9.2. Other information

Bulk density : 350 – 500 kg/m<sup>3</sup>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

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

### 10.4. Conditions to avoid

Water, humidity.

### 10.5. Incompatible materials

No additional information available

# SODIUM BOROHYDRIDE EXTRA PURE

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### 10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Toxic in contact with skin.
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Assumed to cause serious eye damage
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

### SODIUM BOROHYDRIDE EXTRA PURE (16940-66-2)

Viscosity, kinematic	Not applicable
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Potential adverse human health effects and symptoms : Toxic if swallowed, Toxic in contact with skin.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

### 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. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

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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.  
Ecology - waste materials : Hazardous waste due to toxicity.

### SECTION 14: Transport information

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

#### 14.1 UN number

UN-No. (ADR) : UN 1426  
UN-No. (IMDG) : UN 1426  
UN-No. (IATA) : UN 1426  
UN-No. (ADN) : UN 1426  
UN-No. (RID) : UN 1426

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : SODIUM BOROHYDRIDE  
Proper Shipping Name (IMDG) : SODIUM BOROHYDRIDE  
Proper Shipping Name (IATA) : Sodium borohydride  
Proper Shipping Name (ADN) : SODIUM BOROHYDRIDE  
Proper Shipping Name (RID) : SODIUM BOROHYDRIDE  
Transport document description (ADR) : UN 1426 SODIUM BOROHYDRIDE, 4.3, I, (E)  
Transport document description (IMDG) : UN 1426 SODIUM BOROHYDRIDE, 4.3, I  
Transport document description (IATA) : UN 1426 Sodium borohydride, 4.3, I  
Transport document description (ADN) : UN 1426 SODIUM BOROHYDRIDE, 4.3, I  
Transport document description (RID) : UN 1426 SODIUM BOROHYDRIDE, 4.3, I

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR) : 4.3  
Danger labels (ADR) : 4.3



##### IMDG

Transport hazard class(es) (IMDG) : 4.3  
Danger labels (IMDG) : 4.3



##### IATA

Transport hazard class(es) (IATA) : 4.3  
Danger labels (IATA) : 4.3



##### ADN

Transport hazard class(es) (ADN) : 4.3  
Danger labels (ADN) : 4.3

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### RID

Transport hazard class(es) (RID) : 4.3  
Danger labels (RID) : 4.3



### 14.4. Packing group

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

### 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) : W2  
Limited quantities (ADR) : 0  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P403  
Mixed packing provisions (ADR) : MP2  
Transport category (ADR) : 1  
Special provisions for carriage - Packages (ADR) : V1  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV23  
Special provisions for carriage - Operation (ADR) : S20  
Tunnel restriction code (ADR) : E  
EAC code : 4W

#### Transport by sea

Limited quantities (IMDG) : 0  
Excepted quantities (IMDG) : E0  
Packing instructions (IMDG) : P403  
Special packing provisions (IMDG) : PP31  
EmS-No. (Fire) : F-G  
EmS-No. (Spillage) : S-O  
Stowage category (IMDG) : E  
Stowage and handling (IMDG) : H1  
Segregation (IMDG) : SG26, SG35  
Properties and observations (IMDG) : Crystalline powder. In contact with water, acids or moisture, evolves hydrogen, which may be ignited by the heat of the reaction.  
MFAG-No : 138

#### Air transport

PCA Excepted quantities (IATA) : E0  
PCA Limited quantities (IATA) : Forbidden  
PCA limited quantity max net quantity (IATA) : Forbidden  
PCA packing instructions (IATA) : Forbidden



# SODIUM BOROHYDRIDE EXTRA PURE

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PCA max net quantity (IATA) : Forbidden  
CAO packing instructions (IATA) : 487  
CAO max net quantity (IATA) : 15kg  
ERG code (IATA) : 4W

### Inland waterway transport

Classification code (ADN) : W2  
Limited quantities (ADN) : 0  
Excepted quantities (ADN) : E0  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Provisions for handling and stowage of the cargo (ADN) : HA08  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : W2  
Limited quantities (RID) : 0  
Excepted quantities (RID) : E0  
Packing instructions (RID) : P403  
Mixed packing provisions (RID) : MP2  
Transport category (RID) : 1  
Special provisions for carriage – Packages (RID) : W1  
Special provisions for carriage - Loading, unloading and handling (RID) : CW23  
Hazard identification number (RID) : X423

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
40.	SODIUM BOROHYDRIDE EXTRA PURE

##### REACH Annex XIV (Authorisation List)

SODIUM BOROHYDRIDE EXTRA PURE is not on the REACH Annex XIV List

##### REACH Candidate List (SVHC)

SODIUM BOROHYDRIDE EXTRA PURE is not on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

SODIUM BOROHYDRIDE EXTRA PURE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

##### POP Regulation (Persistent Organic Pollutants)

SODIUM BOROHYDRIDE EXTRA PURE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### Ozone Regulation (1005/2009)

SODIUM BOROHYDRIDE is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

# SODIUM BOROHYDRIDE EXTRA PURE

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### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 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 drug precursors)

### 15.1.2. National regulations

#### Germany

- Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 2940).  
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).  
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 : The substance is not listed  
SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

#### Denmark

- Class for fire hazard : Class III-1  
Store unit : 50 liter  
Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed  
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with 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

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Abbreviations and acronyms:	
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)
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. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
H260	In contact with water releases flammable gases which may ignite spontaneously.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, 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.