

# SODIUM CYANOBOROHYDRIDE FOR SYNTHESIS MSDS

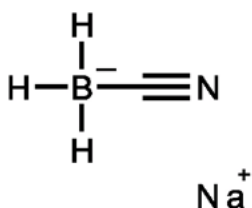
CAS No: 25895-60-7 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : Sodium cyanoborohydride for Synthesis  
EC no : 247-317-2  
CAS No : 25895-60-7  
Product code : 05847  
Chemical structure :



Synonyms : Sodium cyanotrihydridoborate

#### 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

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

#### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (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 H260  
which, in contact with  
water, emit flammable  
gases, Category 1  
Acute toxicity (oral), H300  
Category 1  
Acute toxicity (dermal), H310  
Category 1  
Acute toxicity (inhal.), H330

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

Category 1

Skin corrosion/irritation, H314

Category 1

Hazardous to the aquatic environment — Chronic H410

Hazard, Category 1

Full text of classification categories and H statements : see section 16

### Classification according to Directive 67/548/EEC or 1999/45/EC

F; R15

T+; R26/27/28

C; R34

N; R50/53

R32

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP)

:



GHS02



GHS05



GHS06



GHS09

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H260 - In contact with water releases flammable gases which may ignite spontaneously  
H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled  
H314 - Causes severe skin burns and eye damage  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP)

: P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P302+P352 - IF ON SKIN: Wash with plenty of soap and 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  
P310 - Immediately call a POISON CENTER or doctor/physician  
P402+P404 - Store in a dry place. Store in a closed container

## 2.3. Other hazards

No additional information available

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Name	Product identifier	%
Sodium cyanoborohydride for Synthesis	(CAS No) 25895-60-7 (EC no) 247-317-2	100

Full text of R- and H-phrases: see section 16

#### 3.2. Mixture

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. If you feel unwell, seek medical advice.

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

Symptoms/injuries	: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	: Fatal if inhaled.
Symptoms/injuries after skin contact	: Fatal in contact with skin.
Symptoms/injuries after ingestion	: Fatal if swallowed.

#### 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> ).
Unsuitable extinguishing media	: Water. Do not use a heavy water stream.

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

Fire hazard	: Flammable gas.
Reactivity in case of fire	: Decomposes exothermically on exposure to water (moisture): release of highly flammable gases/vapours (methanol).
Hazardous decomposition products in case of fire	: May release flammable gases.

#### 5.3. Advice for firefighters

Precautionary measures fire	: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
Firefighting instructions	: Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
Other information	: On exposure to high temperature, may decompose, releasing toxic gases.

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Do not breathe vapours.

##### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Very toxic to aquatic life with long lasting effects.

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

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container tightly closed. Store in a dry place. Protect from moisture. Store in a well-ventilated place.

Incompatible products : Oxidizing agent. Strong acids.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection : protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Molecular mass : 62.84 g/mol

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 242 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Could react violently or explosively on contact with water.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

In contact with water releases flammable gases.

### 10.4. Conditions to avoid

Direct sunlight. Overheating. Open flame. Water, humidity.

### 10.5. Incompatible materials

No additional information available

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Dermal: Fatal in contact with skin. Inhalation: Fatal if inhaled.

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 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

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

No additional information available

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. (ADR)	: 1409
UN-No. (IMDG)	: 1409
UN-No.(IATA)	: 1409
UN-No.(ADN)	: 1409
UN-No. (RID)	: 1409

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: METAL HYDRIDES, WATER-REACTIVE, N.O.S.
Proper Shipping Name (IMDG)	: METAL HYDRIDES, WATER-REACTIVE, N.O.S.
Proper Shipping Name (IATA)	: METAL HYDRIDES, WATER-REACTIVE, N.O.S.
Proper Shipping Name (ADN)	: METAL HYDRIDES, WATER-REACTIVE, N.O.S.
Proper Shipping Name (RID)	: METAL HYDRIDES, WATER-REACTIVE, N.O.S.
Transport document description (ADR)	: UN 1409 METAL HYDRIDES, WATER-REACTIVE, N.O.S., 4.3, I, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1409 METAL HYDRIDES, WATER-REACTIVE, N.O.S., 4.3, I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1409 METAL HYDRIDES, WATER-REACTIVE, N.O.S., 4.3, I, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1409 METAL HYDRIDES, WATER-REACTIVE, N.O.S., 4.3, I, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1409 METAL HYDRIDES, WATER-REACTIVE, N.O.S., 4.3, I, ENVIRONMENTALLY HAZARDOUS

### 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



# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### IATA

Transport hazard class(es) (IATA) : 4.3

Hazard labels (IATA) : 4.3



### ADN

Transport hazard class(es) (ADN) : 4.3

Danger labels (ADN) : 4.3



### 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 : Yes

Marine pollutant : Yes

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : W2

Special provision (ADR) : 274, 508

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



# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

Special provisions for carriage - Operation : S20  
(ADR)

Tunnel restriction code (ADR) : E

EAC code : 4W

### - Transport by sea

Special provision (IMDG) : 274

Limited quantities (IMDG) : 0

Excepted quantities (IMDG) : E0

Packing instructions (IMDG) : P403

Packing provisions (IMDG) : PP31

EmS-No. (Fire) : F-G

EmS-No. (Spillage) : S-L

Stowage category (IMDG) : D

Stowage and handling (IMDG) : H1

Segregation (IMDG) : SG35, SG26

### - 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

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

Special provisions (ADN) : 274, 508

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

Special provision (RID) : 274, 508

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 and unloading (RID) : CW23

Hazard identification number (RID) : X423

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Sodium cyanoborohydride for Synthesis is not on the REACH Candidate List

Sodium cyanoborohydride for Synthesis is not on the REACH Annex XIV List

##### 15.1.2. National regulations

###### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

###### Denmark

Recommendations Danish Regulation : 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 additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1
H260	In contact with water releases flammable gases which may ignite spontaneously
H300	Fatal if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H330	Fatal if inhaled
H410	Very toxic to aquatic life with long lasting effects
R15	Contact with water liberates extremely flammable gases
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed
R32	Contact with acids liberates very toxic gas

# Sodium cyanoborohydride for Synthesis

## Safety Data Sheet

R34	Causes burns
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
C	Corrosive
F	Highly flammable
N	Dangerous for the environment
T+	Very toxic

*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*