



3314 Sodium Borohydride

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation

Name:

Sodium Borohydride

Synonym:

Sodium Tetrahydroborane

REACH Registration Number: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) N° 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

1.2 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

2. Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Water-react. 2

Acute Tox. 3

Skin Corr. 1B

Hazard Pictograms



Signal word

Danger

Hazard statements

H261 In contact with water releases flammable gases.

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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.

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Classification (67/548/CEE or 1999/45/CE).

T Toxic	R34
F Highly flammable	R25
	R15

For the full text of the R-phrases mentioned in this section, see section 16.

3. Component Composition/Information

Name: Sodium Borohydride

Formula: NaH₄B M.= 37,83 CAS [16940-66-2]

EC number (EINECS): 241-004-4

4. First aid**4.1 General indications:**

Never provide drink or induce vomiting in the event of loss of consciousness.

4.2 Inhaling:

Take the person out into the fresh air. In the event of suffocation, proceed immediately to provide artificial respiration. Seek immediate medical assistance.

4.3 Contact with the skin:

Take the product out with cotton wool soaked in polyethylene-glycol 400. Wash with plenty of water. Remove contaminated clothing.

4.4 Eyes:

Seek immediate medical assistance. Wash with plenty of water, keeping eyelids open.

4.5 Swallowing:

Drink large amounts of water. Avoid vomiting (there is a risk of perforation). Seek immediate medical assistance. Do not neutralize.

5. Fire-fighting means

5.1 Suitable fire-extinguishing means:

Smother with dry earth or sand.

5.2 Fire-fighting means which must NOT be used:

Water. Carbon dioxide (CO₂). Foam.

5.3 Special risks:

Combustible. Keep away from sources of ignition. In the event of fire, toxic fumes may form. Risk of explosion of dust.

5.4 Protective equipment:

Suitable clothing and footwear.

6. Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

Do not inhale the dust.

6.2 Precautions for care of the environment:

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods for collection/cleaning:

Carry out the operation with maximum precaution. Collect up dry and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

7. Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. Dry atmosphere. In well ventilated premises. Room temperature. Restricted access, only authorized to technicians. Away from sources of ignition and heat.

8. Staff exposure/protection controls

8.1 Technical protective measures:

No special indications.

8.2 Exposure limit control:

: Data not available.

8.3 Respiratory protection:

If dust forms, use suitable respiratory protection.

8.4 Hand protection:

Use suitable gloves

8.5 Eye protection:

Use suitable goggles.

8.6 Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Avoid the formation of dust. Wash hands and face before breaks and when the job is done.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

Appearance: solid

Colour: White

Granulometry: N/A

Odour: Odourless.

pH:

N/A

Melting point/freezing point: 36 °C

Initial boiling point and boiling range: ~500 °C

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density:

N/A

Solubility: 550 g/l in water_{25 °C}

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: above 300 °C

Viscosity: N/A

10. Stability and reactivity

10.1 Conditions which should be avoided:

High temperatures.

10.2 Matter which should be avoided:

Water. Acids. Alkaline hydroxides. Oxidant agents.

10.3 Hazardous decomposition products:

Hydrogen.

10.4 Complementary information:

Hygroscopic.

11. Toxicological information

11.1 Acute toxicity:

LD L0 oral rat : 160 mg/kg

LD50 ipr rat : 18 mg/kg

11.2 Dangerous effects for health:

The product breaks down with the moisture of the tissues. Upon contact with the skin: burns Through contact with the eyes: burns Risk of blindness (irreversible injury of the optic nerve) Risk of sight disorders If swallowed: burns Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

12. Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

Fish (G.Affinis)(B) 5600 mg/l

Classification: Very toxic

Plants (B) 1 mg/l

Classification: Extr. toxic

12.1.2. - Receptor medium:

Risk for the water environment

Medium

Risk for the land environment

Medium

12.1.3. - Observations:

Acute ecotoxicity in the dumping area.

12.2 Persistence and Degradability :

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

12.2.4. - Observations:

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

12.4 Mobility in soil :

Data not available.

12.5 Assessment PBT and MPMB :

Data not available.

12.6 Other possible effects on the environment:

Water-pollutant product.

Reacts with water.

13. Considerations regarding elimination

13.1 Substance or preparation:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

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13.2 Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

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14. Information concerning transport

Overland (ADR):

Technical name: SODIUM BOROHYDRIDE

UN 1426 Class: 4.3 Packaging group: I (E)

By sea (IMDG):

Technical name: SODIUM BOROHYDRIDE

UN 1426 Class: 4.3 Packaging group: I

By air (ICAI-IATA):

Technical name: Sodium borohydride

UN 1426 Class: 4.3 Packaging group: I

Packaging instructions: CAO 487 PAX F

15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. Other information

Other precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P338 Remove contact lenses, if present and easy to do. Continue rinsing.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use for extinction.
P402+P404 Store in a dry place. Store in a closed container.
P405 Store locked up.
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

Labelling (65/548/CEE or 1999/45/CE)

R-phrase(s):	R34 Causes burns. R25 Toxic if swallowed. R15 Contact with water liberates extremely flammable gases.
S-phrase(s):	S43f In case of fire, use sand. Never use water. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S14b Keep away from oxidizing substances and acids, compounds of heavy metals. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

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