

Safety Data Sheet

According to Regulation (EC) 1907/2006



A474 Tetrabutylammonium Borohydride

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

1.1 Identification of the substance or preparation

Name:

Tetrabutylammonium Borohydride

Synonym:

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

Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Water-react. 2

Skin Corr. 1B

Hazard Pictograms



Signal word

Danger

Hazard statements

H261 In contact with water releases flammable gases.

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.

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

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

C Corrosive R34

F Highly flammable R15

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

Component Composition/Information

Name: Tetrabutylammonium Borohydride

Formula: C₁₆H₄₀BN M.= 257,31 CAS [33725-74-5]

EC number (EINECS): 251-658-2

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:

Wash with plenty of water. Remove contaminated clothing. Seek immediate medical assistance.

4.4 Eyes:

Wash with plenty of water (for at least 15 minutes), keeping eyelids open. Seek immediate medical assistance.

4.5 Swallowing:

Wash mouth out immediately. Wash mouth out immediately. Seek immediate medical assistance. Seek immediate medical assistance.

Fire-fighting means

5.1 Suitable fire-extinguishing means:

Carbon dioxide (CO₂). Dry powder. Smother with dry earth or sand.

5.2 Fire-fighting means which must NOT be used:

Water. Foam.

5.3 Special risks:

Combustible. Keep away from sources of ignition. In the event of fire, toxic fumes may form: Do not allow extinguishing water into surface or underground water courses. Keep the workplace dry. The substance must not come into contact with water.

5.4 Protective equipment:

Suitable clothing and footwear. Self-contained breathing equipment.

Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

Avoid contact with the skin, eyes or clothing. Evacuate all non-essential personnel. Avoid sources of ignition. Do not smoke. Do not inhale the fumes. Ensure adequate ventilation.

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:

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation.

Handling and storage

7.1 Handling:

Handle under an extractor fan. Ensure good ventilation and renewal of the air in the premises.
Moisture-sensitive.

7.2 Storage:

Well sealed containers. In a cool, dry, well ventilated place. Away from sources of ignition and heat. Atmospheric temperature.

Staff exposure/protection controls

8.1 Technical protective measures:

Ensure good ventilation and renewal of the air in the premises.

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. Wash hands and face before breaks and when the job is done. Do not inhale the substance. Do not eat, drink or smoke in the workplace. Avoid the formation of dust.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

Physical and chemical properties

Appearance: N/A

Colour:

N/A

Granulometry: N/A

Odour: Characteristic.

pH:

N/A

Melting point/freezing point: 124 - 128 °C

Initial boiling point and boiling range: N/A
Flash point: 140 °C
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: in in water at 20°C:breaks down.
Partition coefficient: n-octanol/water: N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A
Viscosity: N/A

Stability and reactivity

10.1 Conditions which should be avoided:

Humidity.

10.2 Matter which should be avoided:

Strong oxidant agents. Acids. Water.

10.3 Hazardous decomposition products:

Carbon monoxide. Carbon dioxide. Nitrogen oxides. Hydrogen.

10.4 Complementary information:

Corrosive. Moisture sensitive.

Toxicological information

- **Acute toxicity:**

: Data not available.

- **Dangerous effects for health:**

Harmful to the health. Upon contact with the skin: burns irritations Through contact with the eyes: burns irritations Can cause blindness (irreversible injury of the optic nerve) If swallowed: Burns in the digestive apparatus irritations If inhaled: Can cause burns spasms coughing laryngitis irritations breathing difficulties headaches vomiting nausea inflammation and oedema of the larynx, bronchi and lungs. Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

12.1.2. - Receptor medium:

Risk for the water environment

Risk for the land environment

12.1.3. - Observations:

The product reacts with water.

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:

Data not available.

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

Data not available.

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:

Do not allow it to enter soils or water channels.

Do not allow it to enter the sewage system.

Reacts with water.

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.

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.

Information concerning transport

Overland (ADR):

Technical name: WATER-REACTIVE SOLID, N.O.S.

UN 2813 Class: 4.3 Packaging group: II (D/E)

By sea (IMDG):

Technical name: WATER-REACTIVE SOLID, N.O.S.

UN 2813 Class: 4.3 Packaging group: II

By air (ICAI-IATA):

Technical name: Water-reactive, solid, n.o.s.

UN 2813 Class: 4.3 Packaging group: II

Packaging instructions: CAO 490 PAX 484

Regulatory information

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

Other information

Other precautionary statements

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).

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.

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

R-phrases(s):	R34 Causes burns. R15 Contact with water liberates extremely flammable gases.
S-phrases(s):	S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S25 Avoid contact with eyes. S7/8 Keep container tightly closed and dry.

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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