

Safety Data Sheet  
According to Regulation (EC) 1907/2006



**3669 Tetrabutylammonium Hydroxide 0,1 mol/l \*(0,1N) in 2-propanol/methanol (11:1)**

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

**1.1 Identification of the substance or preparation**

Name:

Tetrabutylammonium Hydroxide 0,1 mol/l \*(0,1N) in 2-propanol/methanol (11:1)

**Synonym:**

TBAH

**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](mailto: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.**

Flam. Liq. 2

Acute Tox. 3

Acute Tox. 3

Eye Irrit. 2

STOT SE 3

## Hazard Pictograms



## Signal word

Danger

## Hazard statements

H225 Highly flammable liquid and vapour.

H331 Toxic if inhaled.

H301 Toxic if swallowed.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

## Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242 Use only non-sparking tools.

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

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

**T** Toxic

**F** Highly flammable

R67

R36

R23/25

R11

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

## 3. Component Composition/Information

Name: Tetrabutylammonium Hydroxide 0,1 mol/l \*(0,1N) in 2-propanol/methanol (11:1)

Formula: C<sub>16</sub>H<sub>37</sub>NO M.= 259,48 CAS [2052-49-5]

### Composition:

#### 0001: 2-Propanol

Formula: CH<sub>3</sub>CHOHCH<sub>3</sub> M.= 60,10 CAS [67-63-0]

EC number (EINECS): 200-661-7

EC index number: 603-003-00-0

REACH Registration Number: 01-2119457558-25-XXXX

**Content:** >= 50 %

## Classification Regulation (CE) nº 1272/2008.

Flam. Liq. 2  
Eye Irrit. 2  
STOT SE 3

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash...thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
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.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use for extinction.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

**Xi** Irritant

**F** Highly flammable

**R67** Vapours may cause drowsiness and dizziness.

**R36** Irritating to eyes.

**R11** Highly flammable.

**0002: Tetrabutylammonium Hydroxide aqueous solution 20% w/w**

Formula:  $C_{16}H_{37}NO$  M.= 259,48 CAS [2052-49-5]

EC number (EINECS): 218-147-6

**Content:**  $\geq 1\%$   $\leq 5\%$

**Classification Regulation (CE) nº 1272/2008.**

Flam. Liq. 3

Skin Corr. 1B

Acute Tox. 3

**Hazard Pictograms**



**Signal word**

Danger

**Hazard statements**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H301 Toxic if swallowed.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
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.  
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.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

<b>T</b> Toxic	<b>R25</b> Toxic if swallowed.
<b>C</b> Corrosive	<b>R34</b> Causes burns.
	<b>R10</b> Flammable.

### 0003: Methanol

Formula: CH<sub>3</sub>OH      M.= 32,04      CAS [67-56-1]  
EC number (EINECS): 200-659-6  
EC index number: 603-001-00-X  
REACH Registration Number: 01-2119433307-44-XXXX

**Content:** >= 3 % <= 20 %

### Classification Regulation (CE) n° 1272/2008.

Flam. Liq. 2  
Acute Tox. 3  
Acute Tox. 3  
Acute Tox. 3  
STOT SE 1

## Hazard Pictograms



## Signal word

Danger

## Hazard statements

H225 Highly flammable liquid and vapour.

H331 Toxic if inhaled.

H311 Toxic in contact with skin.

H301 Toxic if swallowed.

H370 Causes damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

## Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242 Use only non-sparking tools.

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

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

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.

P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment (see on this label).

P322 Specific measures (see on this label).

P330 Rinse mouth.

P361 Remove/Take off immediately all contaminated clothing.

P363 Wash contaminated clothing before reuse.

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

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

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

**F** Highly flammable  
**T** Toxic

**R11** Highly flammable.  
**R23/24/25** Toxic by inhalation, in contact with skin and if swallowed.  
**R39/23/24/25** Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**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 to provide artificial respiration.

**4.3 Contact with the skin:**

Wash with plenty of water. Remove contaminated clothing.

**4.4 Eyes:**

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

**4.5 Swallowing:**

Drink large amounts of water. Seek medical assistance. Stomach lavage.

**5. Fire-fighting means**

**5.1 Suitable fire-extinguishing means:**

As appropriate to the environment.

**5.2 Fire-fighting means which must NOT be used:**

No specific data.

**5.3 Special risks:**

Flammable. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. May form explosive mixtures with the air. Risk of inflammation due to accumulation of electrostatic charges.

**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 fumes.

**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. Clean any remains with plenty of water.

## **7. Handling and storage**

### **7.1 Handling:**

No special indications.

### **7.2 Storage:**

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Room temperature.

## **8. Staff exposure/protection controls**

### **8.1 Technical protective measures:**

No special indications.

### **8.2 Exposure limit control:**

VLA-EC(methanol): 333 mg/m<sup>3</sup> dermal resorption

VLA-EC(methanol): 250 ppm

VLA-ED(methanol): 200 ppm - 226 mg/m<sup>3</sup> dermal resorption

VLA-ED(2-propanol): 400 ppm - 998 mg/m<sup>3</sup>

### **8.3 Respiratory protection:**

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter P. Filter A. Filter AX. Filter P3.

### **8.4 Hand protection:**

Use suitable gloves neopren PVC nitrile

### **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.

### **8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation.

## **9. Physical and chemical properties**

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH: 14

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point: > 12 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density: (20/4) 0,79

Solubility: in Miscible with water

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Viscosity: N/A

## **10. Stability and reactivity**

### **10.1 Conditions which should be avoided:**

The product is chemically stable under standard ambient conditions (room temperature).

### **10.2 Matter which should be avoided:**

No specific data.

### **10.3 Hazardous decomposition products:**

No specific data.

### **10.4 Complementary information:**

The gases/fumes can form explosive mixtures with the air.

## **11. Toxicological information**

### **11.1 Acute toxicity:**

: Data not available.

### **11.2 Dangerous effects for health:**

No specific data on this preparation known with regard to effects of overdose in humans. The data we have are insufficient for correct toxicological assessment. Based on the physico-chemical properties, the likely dangerous characteristics are: Upon contact with the skin: irritations If swallowed: hepatic problems kidney problems cardiovascular disorders sight disorders

## **12. 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:

### **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:**

Dangerous for drinking water.

If suitable handling conditions are maintained, no ecological problems are to be anticipated.

No interferences are to be anticipated in treatment plants if use correctly.

## **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: FLAMMABLE LIQUID, TOXIC, N.O.S.

UN 1992 Class: 3 6.1 Packaging group: II (D/E)

By sea (IMDG):

Technical name: FLAMMABLE LIQUID, TOXIC, N.O.S.

UN 1992 Class: 3 6.1 Packaging group: II

By air (ICAI-IATA):

Technical name: Flammable liquid, toxic, n.o.s.

UN 1992 Class: 3 6.1 Packaging group: II

Packaging instructions: CAO 364 PAX 352

## **15. Regulatory information**

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

## 16. Other information

### Other precautionary statements

P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash...thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
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.  
P311 Call a POISON CENTER or doctor/physician.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P321 Specific treatment (see on this label).  
P330 Rinse mouth.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use for extinction.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

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

R-phrases(s):	<b>R67</b> Vapours may cause drowsiness and dizziness. <b>R36</b> Irritating to eyes. <b>R23/25</b> Toxic by inhalation and if swallowed. <b>R11</b> Highly flammable.
S-phrases(s):	<b>S26</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. <b>S24/25</b> Avoid contact with skin and eyes. <b>S16</b> Keep away from sources of ignition - No smoking. <b>S7</b> Keep container tightly closed.

Review number and date: 3 3.11.10

Date published: 3.11.10

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

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.