

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



**5225 Tetrabutylammonium Hydroxide 0,1 mol/l \*(0,1N) in toluene/methanol (9:1)**

**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 toluene/methanol (9:1)

**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. 4

Acute Tox. 4

Acute Tox. 4

STOT SE 1

## Hazard Pictograms



## Signal word

Danger

## Hazard statements

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H302 Harmful 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.

P243 Take precautionary measures against static discharge.

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

**T** Toxic

R39/23/24/25

**F** Highly flammable

R20/21/22

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 toluene/methanol (9:1)

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

EC number (EINECS): 218-147-6

## Composition:

### 0001: Silver(I) Oxide

Formula: Ag<sub>2</sub>O M.= 231,74 CAS [20667-12-3]

EC number (EINECS): 243-957-1 REACH Registration Number: 01-2119513370-54-XXXX

**Content:** ≤ 5 %

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

Ox. Sol. 3  
Eye Dam. 1

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H272 May intensify fire; oxidiser.  
H318 Causes serious eye damage.  
EUH044 Risk of explosion if heated under confinement.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220 Keep/Store away from clothing/combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P370+P378 In case of fire: Use for extinction.

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

**Xi** Irritant  
**O** Oxidizing

**R44** Risk of explosion if heated under confinement.

**R41** Risk of serious damage to eyes.

**R8** Contact with combustible material may cause fire.

## 0002: Tetrabutylammonium Iodide

Formula: C<sub>16</sub>H<sub>36</sub>IN M.= 369,38 CAS [311-28-4]  
EC number (EINECS): 206-220-5

**Content:** ≤ 5 %

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

Acute Tox. 4

### Hazard Pictograms



**Signal word**

Warning

**Hazard statements**

H302 Harmful if swallowed.

**Precautionary statements**

P264 Wash...thoroughly after handling.

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

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

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

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

**Xn** Harmful

**R22** Harmful if swallowed.

**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:** >= 5 % <= 10 %

**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.

### 0004: Toluene

Formula: C<sub>6</sub>H<sub>5</sub>CH<sub>3</sub> M.= 92,14 CAS [108-88-3]  
EC number (EINECS): 203-625-9  
EC index number: 601-021-00-3  
REACH Registration Number: 01-2119471310-51-XXXX

**Content:** >= 80 % <= 90 %

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

Flam. Liq. 2  
Skin Irrit. 2  
Repr. 2  
Asp. Tox. 1  
STOT SE 3

### **Hazard Pictograms**



### **Signal word**

Danger

### **Hazard statements**

H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H361d Suspected of damaging the unborn child.  
H304 May be fatal if swallowed and enters airways.  
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.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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.  
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.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P314 Get medical advice/attention if you feel unwell.  
P321 Specific treatment (see on this label).  
P331 Do NOT induce vomiting.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362 Take off contaminated clothing and wash 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.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

**F** Highly flammable  
**Xn** Harmful

**R11** Highly flammable.  
**R38** Irritating to skin.  
**R48/20** Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
**R63** Possible risk of harm to the unborn child.  
**R65** Harmful: may cause lung damage if swallowed.  
**R67** Vapours may cause drowsiness and dizziness.

## 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.

#### **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. Seek medical assistance.

#### **4.5 Swallowing:**

Drink large amounts of water or milk. Avoid vomiting. Seek immediate medical assistance.

### **5. Fire-fighting means**

#### **5.1 Suitable fire-extinguishing means:**

Carbon dioxide (CO<sub>2</sub>). Foam. Dry powder.

#### **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.

#### **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:**

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:**

Avoid the formation of electrostatic charges. No special indications.

#### **7.2 Storage:**

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Do not store in plastic containers.

### **8. 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:**

In the event of fumes forming/aerosols, 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.

**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:

N/A

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point: 27,7 °C (closed cup)

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:

N/A

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:**

High temperatures.

**10.2 Matter which should be avoided:**

Halogen halides. Nitrogen oxides. Nitrogen organic compounds. Oxidant agents. Nitric acid. Sulphur. Rubber.

**10.3 Hazardous decomposition products:**

No specific data.

**10.4 Complementary information:**

No specific data.

**11. Toxicological information****11.1 Acute toxicity:**

: Data not available.

**11.2 Dangerous effects for health:**

If fumes inhaled: Irritations to the respiratory tracts. Due to absorption: Systemic effects: effects on the central nervous system intoxication spasms loss of consciousness respiratory paralysis cardiovascular failure If swallowed: vomiting Risk of aspiration upon vomiting. Absorption Upon contact with the skin: irritations Following prolonged contact with the product. dermatitis Can have a demoiaturizing effect on the skin, with the risk of secondary infection. Risk of cutaneous absorption. Through contact with the eyes: Irritations to the mucosae Other dangerous characteristics are not discarded.

**12. Environmental information****12.1 Toxicity:**

12.1.1 - EC50 test (mg/l):

Bacteria (*Photobacterium phosphoreum*) 18 mg/l

Classification:

Extr. toxic

Algae (*Sc. quadricauda*) 120 mg/l

Classification:

Highly toxic

Crustaceans (*Daphnia magna*) 60 mg/l

Classification:

Extr. toxic

Fish (*Leuciscus Idus*) 70 mg/l

Classification:

Extr. toxic

Fish (*Salmo gairdneri*) 58 mg/l

Classification:

Extr. toxic

12.1.2. - Receptor medium:

Risk for the water environment

High

Risk for the land environment Medium

12.1.3. - Observations:

Extremely toxic in water environments.

## **12.2 Persistence and Degradability :**

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5 0,86 g/g

BOD5/COD

Biodegradability

DOC 0,7 g/g

12.2.3. - Abiotic degradation depending on pH:

ThOD 3,13 g/100 ml

12.2.4. - Observations:

Low biodegradability product.

## **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 :**

Repartition:  $\log P(\text{oct}) = 2.69$

## **12.5 Assessment PBT and MPMB :**

Data not available.

## **12.6 Other possible effects on the environment:**

Pollutant product.

Do not allow it to enter soils or water channels.

DATA BASED on the components of the preparation.

(Major component:

toluene).

## **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: III (D/E)

By sea (IMDG):

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

UN 1992 Class: 3 6.1 Packaging group: III

By air (ICAI-IATA):

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

UN 1992 Class: 3 6.1 Packaging group: III

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**

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+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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.

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.

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.

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

R-phrase(s):     **R39/23/24/25** Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.  
                          **R20/21/22** Harmful by inhalation, in contact with skin and if swallowed.  
                          **R11** Highly flammable.

S-phrase(s):     **S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
                          **S24** Avoid contact with skin.  
                          **S16** Keep away from sources of ignition - No smoking.  
                          **S7** Keep container tightly closed.

Review number and date: 4 28.10.2011

Date published: 28.10.2011

In respect of the previous review, changes have been made to the following sections: 9, 14

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.