

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



1296 1,4-Dioxan stabilized with BHT

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

**1.1 Identification of the substance or preparation**

Name:

1,4-Dioxan stabilized with BHT

**Synonym:**

Diethylene Dioxide

**REACH Registration Number:** 01-2119462837-26-XXXX

**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

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Tel. (+34) 937 489 400

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**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) nº 1272/2008.**

Flam. Liq. 2

Eye Irrit. 2

STOT SE 3

Carc. 2

**Hazard Pictograms**



**Signal word**

Danger

### **Hazard statements**

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
EUH019 May form explosive peroxides.  
EUH066 Repeated exposure may cause skin dryness or cracking.

### **Precautionary statements**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
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.

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

<b>F</b> Highly flammable	R11
<b>Xn</b> Harmful	R19
	R36/37
	R40
	R66

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

## **3. Component Composition/Information**

Name: 1,4-Dioxan stabilized with BHT  
Formula: C<sub>4</sub>H<sub>8</sub>O<sub>2</sub> M.= 88,11 CAS [123-91-1]  
EC number (EINECS): 204-661-8  
EC index number: 603-024-00-5  
REACH Registration Number: 01-2119462837-26-XXXX

## **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. Seek medical assistance.

#### **4.5 Swallowing:**

Drink large amounts of water. Laxatives: sodium sulphate (1 soup-spoonful in 250 ml of water). Precaution in the event of vomiting (there is a risk of aspiration). Seek medical assistance. Do not drink milk. Do not administer castor oil.

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

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

Water. 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:**

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:**

Avoid the formation of electrostatic charges.

#### **7.2 Storage:**

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

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

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

No special indications.

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

VLA-EC: 274 mg/m<sup>3</sup>

VLA-ED: 20 ppm - 92 mg/m<sup>3</sup> dermal resorption

#### **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: 6 - 8 ((500g/l))

Melting point/freezing point: 11,8 °C

Initial boiling point and boiling range: 101 °C

Flash point: 11 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: 22,5 %(V) / 1,9 %(V)

Vapour pressure: 41 hPa (20 °C)

Vapour density: N/A

Relative density: (20/4) 1,0337

Solubility: Miscible with water

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature: 375 °C

Decomposition temperature: N/A

Viscosity: N/A

### **10. Stability and reactivity**

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

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

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

Strong acids. Oxidant agents. Copper. Hydrides. Sulphoxides. Perchlorates. Aluminium tri-ethyl.

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

No specific data.

#### **10.4 Complementary information:**

The gases/fumes can form explosive mixtures with the air. Danger of explosion if distilled. Can form explosive peroxides.

### **11. Toxicological information**

### **11.1 Acute toxicity:**

LD50 oral mus : 5.700 mg/kg

LD50 skn rbt : 7.600 mg/kg

LC L0 inh hmh : 470 ppm 3d

LC50 inh rat : 46000 mg/m<sup>3</sup> 2h

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

If fumes inhaled: Absorption Irritations to the respiratory tracts. Upon contact with the skin: Risk of cutaneous absorption. Through contact with the eyes: irritations If swallowed: The following cannot be ruled out: Absorption Systemic effects: kidney problems hepatic problems

## **12. Environmental information**

### **12.1 Toxicity:**

12.1.1 - EC50 test (mg/l):

Bacteria (*Photobacterium phosphoreum*) 668 mg/l

Classification:

Highly toxic

Bacteria (*Ps. putida*) EC0 2700 mg/l

Classification:

Very toxic

Algae (*M. aeruginosa*) EC0 575 mg/l

Classification: Very toxic

Protozoa (*E. sulcatum*) EC0 5340 mg/l

Classification: Very toxic

Crustaceans (*Daphnia magna*) 2070 mg/l

Classification:

Very toxic

Algae (*Sc. quadricauda*)

Classification: Very toxic

12.1.2. - Receptor medium:

Risk for the water environment

High

Risk for the land environment Medium

12.1.3. - Observations:

Ecotoxic in water environment.

### **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:

Product with a low bioaccumulative potential.

### **12.4 Mobility in soil :**

Repartition: log P(oct)= -0,42

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

Data not available.

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

Risk of formation of explosive fumes on the surface of the water.

Water-pollutant product.

Do not allow it to enter soils or water channels.

## **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: DIOXANE

UN 1165 Class: 3 Packaging group: II (D/E)

By sea (IMDG):

Technical name: DIOXANE

UN 1165 Class: 3 Packaging group: II

By air (ICAI-IATA):

Technical name: Dioxane

UN 1165 Class: 3 Packaging group: II

Packaging instructions: CAO 364 PAX 353

## **15. Regulatory information**

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

## **16. Other information**

### Other precautionary statements

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.  
P281 Use personal protective equipment as required.  
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.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
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.

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

R-phrases(s):	<b>R11</b> Highly flammable. <b>R19</b> May form explosive peroxides. <b>R36/37</b> Irritating to eyes and respiratory system. <b>R40</b> Limited evidence of a carcinogenic effect. <b>R66</b> Repeated exposure may cause skin dryness or cracking.
S-phrases(s):	<b>S9</b> Keep container in a well-ventilated place. <b>S16</b> Keep away from sources of ignition - No smoking. <b>S36/37</b> Wear suitable protective clothing and gloves. <b>S46</b> If swallowed, seek medical advice immediately and show this container or label.

Review number and date: 4 15.09.2011

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