

# Safety Data Sheet

## According to Regulation (EC) 1907/2006



### 3312 tert-Butyl Methyl Ether

#### 1. Identification of the substance/mixture and of the company/undertaking

##### 1.1 Product identifier

Name:

tert-Butyl Methyl Ether

##### Synonym:

1,1-Dimethyl ethyl methyl ether, 2-Methoxy-2-Methylpropane, Methyl-ter-Butyl Ether, MTB, MTBE

**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 Relevant identified uses of the substance or mixture:

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

Skin Irrit. 2

## Hazard Pictograms



## Signal word

Danger

## Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

## 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).

**Xi** Irritant

R38

**F** Highly flammable

R11

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

## 3. Composition/information on ingredients

Name: tert-Butyl Methyl Ether

Formula: C<sub>5</sub>H<sub>12</sub>O M.= 88,15 CAS [1634-04-4]

EC number (EINECS): 216-653-1

EC index number: 603-181-00-X

## 4. First aid measures

### 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, keeping eyelids open. In the event of irritation, seek medical assistance.

#### **4.5 Swallowing:**

Avoid vomiting. Risk of aspiration. Seek medical assistance. Administer a solution of medical-usage active charcoal.

### **5. Firefighting measures**

#### **5.1 Suitable extinguishing media:**

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

#### **5.2 Unsuitable extinguishing media:**

No specific data.

#### **5.3 Special hazards arising from the substance or mixture:**

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. Prevent the build-up of static.

#### **5.4 Advice for firefighters:**

Suitable clothing and footwear.

### **6. Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures:**

No special indications.

#### **6.2 Environmental precautions:**

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

#### **6.3 Methods and material for containment and cleaning up:**

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 Precautions for safe handling:**

Avoid the formation of electrostatic charges.

#### **7.2 Conditions for safe storage, including any incompatibilities:**

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

### **8. Exposure controls/personal protection**

#### **8.1 Exposure controls:**

No special indications.

#### **8.2 Control parameters:**

VLA-ED: 40 ppm - 147 mg/m<sup>3</sup> ,

#### **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/face protection:**

Use suitable goggles.

**8.6 Individual hygiene measures:**

Remove contaminated clothing. Use complete protective equipment. 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: -109 °C

Initial boiling point and boiling range: 55,2 °C

Flash point: - 28 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: 8,4 %(V) / 1,7 %(V)

Vapour pressure: 268 hPa (20 °C)

Vapour density: N/A

Relative density: (20/4) 0,742

Solubility: 51 g/l in water ( 20 °C )

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature: 460 °C

Decomposition temperature: N/A

Kinematic viscosity:N/A

Dynamic viscosity:0,27 mPa.s(25 °C)

**10. Stability and reactivity****10.1 Conditions to avoid:**

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

**10.2 Incompatible materials:**

Strong acids.

**10.3 Hazardous decomposition products:**

No specific data.

**10.4 Chemical stability:**

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

**11. Toxicological information**

### **11.1 Acute toxicity:**

LD50 oral rat : 4.000 mg/kg

LC50 inh rat : 23576 ppm 4h

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

Upon contact with the skin: Risk of cutaneous absorption. If swallowed: nausea vomiting Risk of aspiration upon vomiting. If it is absorbed in large quantities: euphoria dizziness drowsiness anxiety spasms narcosis Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

## **12. Environmental information**

### **12.1 Toxicity:**

- **EC50 test (mg/l):**

- **Receptor medium:**

Risk for the water environment

Risk for the land environment

- **Observations:**

Ecotoxic data not available.

### **12.2 Persistence and Degradability :**

- **Test:**

- **Biotic degradation classification:**

BOD5/COD

Biodegradability

- **Abiotic degradation depending on pH:**

- **Observations:**

Data not available.

### **12.3 Bioaccumulative potential:**

- **Test:**

- **Bioaccumulation:**

Risk

- **Observations:**

Data not available.

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

Data not available.

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

Data not available.

### **12.6 Other adverse effects:**

Do not allow it to enter soils or water channels.

Hardly pollutant product.

Do not allow it to enter the sewage system.

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

## **13. Disposal considerations**

### **13.1 Waste treatment methods:**

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. Transport information**

Overland (ADR):

Technical name: METHYL tert-BUTYL ETHER

UN 2398 Class: 3 Packaging group: II (D/E)

By sea (IMDG):

Technical name: METHYL tert-BUTYL ETHER

UN 2398 Class: 3 Packaging group: II

By air (ICAI-IATA):

Technical name: Methyl tert-butyl ether

UN 2398 Class: 3 Packaging group: II

Packaging instructions: CAO 364 PAX 353

## **15. Regulatory information**

Categorized as hydrocarbon substance.

## **16. Other information**

### **Other precautionary statements**

P264 Wash...thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection or face protection.

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.

P321 Specific treatment (see on this label).

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

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):     **R38** Irritating to skin.  
                      **R11** Highly flammable.

S-phrase(s):     **S24** Avoid contact with skin.  
                      **S16** Keep away from sources of ignition - No  
                                  smoking.  
                      **S9** Keep container in a well-ventilated place.

Version and revision date : 4 26.04.13

Date published: 26.04.13

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

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.