



Safety Data Sheet  
According to Regulation (EC) 1907/2006  
and (EU) 453/2010

## 1745 Toluene

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

#### 1.1 Product identifier

Name:

Toluene

#### Synonym:

Methylbenzene, Phenylmethane, Toluol

**CAS:** [108-88-3]

**REACH Registration Number:** 01-2119471310-51-XXXX

#### 1.2 Relevant identified uses of the substance or mixture:

Distribution of Substance.

Formulation and repackaging of substances and mixtures

Production of the substance.

Production and processing of Rubber.

Use as fuel.

Use as functional fluids.

Use as Intermediate.

Use as binders and release agents.

Use in Cleaning Agents.

Use as laboratory chemicals.

Use in coatings.

#### 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

## 2.1 Classification of the substance or the mixture.

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

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

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

<b>F</b> Highly flammable	R11
<b>Xn</b> Harmful	R38
	R48/20
	R63
	R65
	R67

## 2.2 Label elements:

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H361fdi Suspected of damaging fertility by inhalation. Suspected of damaging the unborn child by inhalation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.

### Precautionary statements

P201 Obtain special instructions before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

### **2.3 Other hazards:**

No further relevant information available.

## **3. Composition/information on ingredients**

Name: 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

## **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 immediately to provide artificial respiration. Seek immediate medical assistance. In case of loss of consciousness, position the person lying on his/her side. Seek immediate medical assistance.

### **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:**

Call for medical help. Wash mouth out immediately. Drink large amounts of water. Do not induce vomiting.

#### **· Most important symptoms and effects, both acute and delayed:**

See Section 11 for more information.

#### **· Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

#### **· Information for doctor:**

No further a specific treatment.

## **5. Firefighting measures**

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

Carbon dioxide (CO<sub>2</sub>). Alcohol resistant foam. Dry powder. Atomized water.

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

Running water.

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

Combustible. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. Auf Rückzündung achten In the event of fire, toxic fumes may form: CO y CO2.

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

Suitable clothing and footwear. Self-contained breathing equipment. Cool the recipients with water.

## **6. Accidental release measures**

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

Do not inhale the fumes. Protect the respiratory tracts. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate all non-essential personnel. Avoid sources of ignition. Do not smoke.

### **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. Ensure good ventilation and renewal of the air in the premises. Avoid breathing dust, fume, gas, mist, vapours or spray. Avoid contact with the skin, eyes or clothing. Use personal protective equipment as required.

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

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

**Recommended storage temperature:** Room temperature.

• **Storage class:** 3

**Technical instructions (air):** Highly flammable.

### **7.3 Specific end use(s):**

No further relevant information available.

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

### **8.1 Exposure controls:**

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

## 8.2 Control parameters:

VLA-ED: 50 ppm = 192 mg/m<sup>3</sup> VLA-EC(Spain): 100 ppm = 384 mg/m<sup>3</sup> Factor for short-term value(Germany): 4

### Derived No Effect Level (DNEL)

Population Inhalation, acute (systemic): 226 mg/m<sup>3</sup> Population Inhalation, acute (local): 226 mg/m<sup>3</sup> Population, Dermal, long exposure (systemic): 226 mg/m<sup>3</sup> Population Inhalation, long term (systemic): 226mg/kg bw/24h Population Inhalation, long term (systemic): 56,5 mg/m<sup>3</sup> Population, oral, long term (systemic): 8.13mg/kg bw/24h

### Predicted No Effect Concentration (PNEC)

Freshwater Sediment: 0.68mg/l Marine water Sediment: 0.68mg/l Sewage treatment plant: 13.61mg/l Freshwater Sediment: 16.39mg/kg Marine water Sediment: 16.39mg/kg Soil: 2.89mg/kg

## 8.3 Respiratory protection:

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

## 8.4 Hand protection:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

**Material:** Fluorocarbon rubber (Viton) Recommended thickness of the material:  $\geq 0.7$  mm Breakthrough time:  $\geq 480$  min.

- **As protection from splashes gloves made of the following materials are suitable:**

**Material:** Nitrile rubber, NBR Recommended thickness of the material:  $\geq 0.4$  mm Breakthrough time:  $\geq 10$  min.

## 8.5 Eye/face protection:

Use safety glasses.

## 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:

Avoid pollution of the soil, water supplies and drains.

# 9. Physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH:

N/A

Melting point/freezing point: -94,99 °C  
Initial boiling point and boiling range: 110,62 °C  
Flash point: 4,4 °C  
Flammability (solid, gas):  
N/A  
Upper/lower flammability or explosive limits: 7 %(V) / 1,2 %(V)  
Vapour pressure: 29 hPa (20 °C)  
Vapour density: N/A  
Relative density:

Insertar Aquí Grupo de repeticion

(20/4) 0,866 g/ml  
Solubility: 0,05 g/l in water ( 20 °C )  
Partition coefficient: n-octanol/water:  
N/A  
Auto-ignition temperature: 535 °C  
Decomposition temperature: N/A  
Kinematic viscosity: N/A  
Dynamic viscosity: 0,59 mPa.s (25 °C)

## **10. Stability and reactivity**

### **10.1 Conditions to avoid:**

High temperatures.

### **10.2 Incompatible materials:**

Oxidant agents. Strong acids. Halogen halides. Perchlorates. Nitrogen organic compounds.

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

No specific data.

### **10.4 Chemical stability:**

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

## **11. Toxicological information**

### **11.1 Acute toxicity:**

LD50 oral rat : 636 mg/kg

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

**Skin corrosion/irritation:** Irritations to the skin and mucosae. **Serious eye damage/irritation:** Strongly irritant in rabbits. **Respiratory or skin sensitisation:** Data not available. **Germ cell mutagenicity:** Data not available. **Carcinogenicity:** Data not available. **Reproductive toxicity:** Pregnant women must not be allowed to come into contact with the product. Possible risk of adverse effects to the foetus during pregnancy. **STOT- single exposure:** narcosis **STOT-repeated exposure:** Data not available. **Aspiration hazard:** Asp. Tox. 1  
**·Most important symptoms and effects acute:** irritations, respiratory paralysis, drowsiness, vertigo, nausea, vomiting, alterations of the circulation, headaches, effects on the central nervous system, death

## **12. Environmental information**

## **12.1 Toxicity:**

### **Acute toxicity for Algae:**

(P. Subcapitata) EC50 12500 µg/l (72h)

(Skeletonema costatum) EC50 >433 ppm (96h)

### **Acute toxicity for aquatic invertebrates:**

(Daphnia magna) NOEC 1000 µg/l (<24h) (21d)

(Gammarus pseudolimnaeus) 11600 µg/l (48h)

## **12.2 Persistence and Degradability :**

Easily biodegradable product.

## **12.3 Bioaccumulative potential:**

Product with a low bioaccumulative potential.

## **12.4 Mobility in soil :**

log Pow = 2,73

Product has a low potential for adsorption.

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

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Does not meet the criteria for PBT (persistent / bioaccumulative / toxic).

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the

Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):

Does not meet the criteria vPvB (very persistent / very bioaccumulative).

## **12.6 Other adverse effects:**

Do not allow it to enter soils or water channels.

## **12.7 General notes:**

### **· Water hazard class:**

### **(German Regulation) (Assessment by list):**

2 hazardous for water.

### **(Dutch Regulation):**

1 Blacklist substance (76/464/EEC).

## **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.

### **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.

## **14. Transport information**

Overland (ADR):

Technical name: TOLUENE

UN 1294 Class: 3 Packaging group: II (D/E)

By sea (IMDG):

Technical name: TOLUENE

UN 1294 Class: 3 Packaging group: II

By air (ICAI-IATA):

Technical name: Toluene

UN 1294 Class: 3 Packaging group: II

Packaging instructions: CAO 364 PAX 353

## **15. Regulatory information**

The substance is subject to Regulation (EC) No 273/2004 of the European Parliament and of the Council, of 11 February 2004 on drug precursors, Council Regulation (EC) No 111/2005 of 22 December 2004 laying down rules for the monitoring of trade between the Community and third countries in drug precursors, Commission Regulation (EC) No 1277/2005 of 27 July 2005 laying down implementing rules for Regulation (EC) No 273/2004 of the European Parliament and of the Council on drug precursors and for Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.

Categorized as hydrocarbon substance.

For this product a chemical safety assessment was carried out.

## **16. Other information**

### **Other precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P235 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): **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.

S-phrase(s): **S36/37** Wear suitable protective clothing and gloves.  
**S62** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Version and revision date : 5 07.10.2013

Replaced: 15.09.2011

In respect of the previous review, changes have been made to the following sections: 1,2,4,5,6,7,8,10,11,12,15

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.