

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** toluene
- **Manufacturer/Supplier:**  
Petrochem Middle East FZE  
PO Box 17028,  
Jebel Ali Free Zone  
Dubai, UAE  
Ph +971 4 8839222; Fax +971 4 8834133
- **Further information obtainable from:** Product safety department.
- **Information in case of Emergency** Product safety department.

## 2 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description**  
108-88-3 toluene
- **Identification number(s)**
- **EINECS Number:** 203-625-9
- **Index number:** 601-021-00-3

## 3 Hazards identification

- **Hazard description:**



Repr. Cat. 3  
Xn Harmful  
F Highly flammable

- **Information concerning particular hazards for human and environment:**

R 11 Highly flammable.  
R 38 Irritating to skin.  
R 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R 63 Possible risk of harm to the unborn child.  
R 65 Harmful: may cause lung damage if swallowed.  
R 67 Vapours may cause drowsiness and dizziness.

## 4 First aid measures

- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

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**Trade name:** toluene

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· **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
  - Dilute with plenty of water.
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

### 7 Handling and storage

- **Handling:**
  - **Information for safe handling:** No special requirement
  - **Information about fire - and explosion protection:**
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep container tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

**108-88-3 toluene**

PEL (USA)	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV (USA)	75 mg/m <sup>3</sup> , 20 ppm
WEL (Great Britain)	Short-term value: 384 mg/m <sup>3</sup> , 100 ppm Long-term value: 191 mg/m <sup>3</sup> , 50 ppm Sk

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the skin.
    - Avoid contact with the eyes and skin.

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· **Respiratory protection:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

· **Protection of hands:**



Protective gloves

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

*Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*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.*

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Aromatic

· **Change in condition**

<b>Melting point/Melting range:</b>	-95°C
<b>Boiling point/Boiling range:</b>	110-111°C

· **Flash point:** 4°C

· **Ignition temperature:** 535°C

· **Danger of explosion:** *Product is not explosive. However, formation of explosive air/vapour mixtures are possible.*

· **Explosion limits:**

<b>Lower:</b>	1.2 Vol %
<b>Upper:</b>	7 Vol %

· **Vapour pressure at 20°C:** 29 hPa

· **Density at 20°C:** 0.87 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water at 15°C:** 0.5 g/l

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- **Viscosity:**  
**Dynamic at 20°C:**                    0.6 mPas

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
  - **LD/LC50 values relevant for classification:**
- |            |          |                      |
|------------|----------|----------------------|
| Oral       | LD50     | 5000 mg/kg (rat)     |
| Dermal     | LD50     | 12124 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 5320 mg/l (mouse)    |
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.

### 12 Ecological information

- **General notes:**  
 Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak into the ground.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:**                    3 Flammable liquids.
- **Danger code (Kemler):** 33

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- **UN-Number:** 1294
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1294 TOLUENE

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1294
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** TOLUENE

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1294
- **Label:** 3
- **Packaging group:** II
- **Proper shipping name:** TOLUENE

## 15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



Repr. Cat. 3  
Xn Harmful  
F Highly flammable

· **Risk phrases:**

- 11 Highly flammable.
- 38 Irritating to skin.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 63 Possible risk of harm to the unborn child.
- 65 Harmful: may cause lung damage if swallowed.
- 67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

- 2 Keep out of the reach of children.
- 36/37 Wear suitable protective clothing and gloves.

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# Safety Data Sheet

## According to 91/155 EEC

Printing date 24.06.2009

Revision: 24.06.2009

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62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** Product safety department
- **Contact:** Mr. Menon

UAE