



Printing date 03.08.2006

Reviewed on 24.07.2006

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

- **Product details**
- **Trade name:** Ethyl Glycol
- **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.

**2 Composition/information on ingredients**

- **Chemical characterization:**
- **CAS No. Description**  
110-80-5 2-ethoxyethanol
- **Identification number(s)**
- **EINECS Number:** 203-804-1
- **EU Number:** 603-012-00-X

**3 Hazards identification**

- **Hazard description:**



Repr. Cat. 2  
T Toxic

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

R 60 May impair fertility.  
R 61 May cause harm to the unborn child.  
R 10 Flammable.  
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

**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:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Call for a doctor immediately.

**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.

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· **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
  - Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.

## 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:**

### 110-80-5 2-ethoxyethanol

PEL (USA)	740 mg/m <sup>3</sup> , 200 ppm Skin
REL (USA)	1.8 mg/m <sup>3</sup> , 0.5 ppm Skin
TLV (USA)	18 mg/m <sup>3</sup> , 5 ppm Skin; BEI
WEL (Great Britain)	37 mg/m <sup>3</sup> , 10 ppm

- **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.
  - Store protective clothing separately.
  - 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**

**Form:** Oily  
**Colour:** Colourless  
**Odour:** Ether-like

· **Change in condition**

**Melting point/Melting range:** -100°C  
**Boiling point/Boiling range:** 135°C

· **Flash point:** 40°C

· **Ignition temperature:** 235°C

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

· **Explosion limits:**

**Lower:** 1.8 Vol %  
**Upper:** 15.7 Vol %

· **Vapour pressure at 20°C:** ca.5 hPa

· **Density at 20°C:** 0.93 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Fully miscible.

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- **Viscosity:**  
**Dynamic at 20°C:** 2.07 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	3000 mg/kg (rat)
Dermal	LD50	3300 mg/kg (rabbit)
Inhalative	LC50/4 h	2000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

### 12 Ecological information

- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 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.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

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



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1171

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- **Packaging group:** III
- **Hazard label:** 3
- **Description of goods:** 1171 ETHYLENE GLYCOL MONOETHYL ETHER

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1171
- **Label** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Proper shipping name:** ETHYLENE GLYCOL MONOETHYL ETHER

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1171
- **Label** 3
- **Packaging group:** III
- **Proper shipping name:** ETHYLENE GLYCOL MONOETHYL ETHER

### 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. 2  
T Toxic
- **Risk phrases:**  
60 May impair fertility.  
61 May cause harm to the unborn child.  
10 Flammable.  
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- **Safety phrases:**  
53 Avoid exposure - obtain special instructions before use.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 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:** Terminal Manager