

Printing date 24.06.2009 Revision: 23.06.2009

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

· Product details

· Trade name: n Propanol

· 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
- 71-23-8 propan-1-ol
- · Identification number(s)
- · EINECS Number: 200-746-9
- · Index number: 603-003-00-0

3 Hazards identification

· Hazard description:





Xi Irritant

F Highly flammable

- · Information concerning particular hazards for human and environment:
- R 11 Highly flammable.
- R 41 Risk of serious damage to eyes.
- R 67 Vapours may cause drowsiness and dizziness.

4 First aid measures

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.

5 Fire-fighting measures

- · Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

(Contd. on page 2)



Printing date 24.06.2009 Revision: 23.06.2009

Trade name: n Propanol

(Contd. of page 1)

· Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/surface or ground water.

· Measures for cleaning/collecting:

Dilute with plenty of water.

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: | | |
|---|--------------------------------------|--|
| 71-23-8 propan-1-ol | | |
| PEL (USA) | 500 mg/m³, 200 ppm | |
| REL (USA) | Short-term value: 625 mg/m³, 250 ppm | |
| | Long-term value: 500 mg/m³, 200 ppm | |
| | Skin | |
| TLV(USA) | 246 mg/m³, 100 ppm | |
| WEL (Great Britain) | Short-term value: 625 mg/m³, 250 ppm | |
| | Long-term value: 500 mg/m³, 200 ppm | |
| | Sk | |

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

- · Respiratory protection: Not required.
- · 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 (Contd. on page 3)



Printing date 24.06.2009 Revision: 23.06.2009

Trade name: n Propanol

(Contd. of page 2)

· 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: | Fluid |
| Colour: | Colourless |
| Odour: | Alcohol-like |
| · Change in condition | |
| Melting point/Melting range: | |
| Boiling point/Boiling range: | 96.5-97.5°C |
| · Flash point: | 23°C |
| · Ignition temperature: | 360°C |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapour mixture are possible. |
| · Explosion limits: | |
| Lower: | 2.1 Vol % |
| Upper: | 13.5 Vol % |
| · Vapour pressure at 20°C: | 19 hPa |
| · Density at 20°C: | $0.8035 \ g/cm^3$ |
| · Solubility in / Miscibility with | |
| water at 20°C: | 1 g/l |
| · pH-value (200 g/l) at 20°C: | 7 |
| · Viscosity: | |
| Dynamic at 20°C: | 2.3 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.

UAE -



Printing date 24.06.2009 Revision: 23.06.2009

Trade name: n Propanol

(Contd. of page 3)

11 Toxicological information

- · Acute toxicity:
- · LD/LC50 values relevant for classification:

Oral LD50 1870 mg/kg (rat)
Dermal LD50 5040 mg/kg (rabbit)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Strong irritant with the danger of severe eye injury.
- · 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: 1274
Packaging group: III
Hazard label: 3

· Description of goods: 1274 PROPANOL (PROPYL ALCOHOL, NORMAL)

· Maritime transport IMDG:



· IMDG Class: 3
 · UN Number: 1274
 · Label 3

(Contd. on page 5)



Printing date 24.06.2009 Revision: 23.06.2009

Trade name: n Propanol

(Contd. of page 4)

· Packaging group: III

· EMS Number: F-E,S-D · Marine pollutant: No

· Proper shipping name: PROPANOL (PROPYL ALCOHOL, NORMAL)

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3 · UN/ID Number: 1274 · Label 3 · Packaging group: III

· Proper shipping name: PROPANOL (PROPYL ALCOHOL, NORMAL)

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:





Xi Irritant

F Highly flammable

- · Risk phrases:
- 11 Highly flammable.
- 41 Risk of serious damage to eyes.
- 67 Vapours may cause drowsiness and dizziness.
- · Safety phrases:
- 2 Keep out of the reach of children.
- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition No smoking.
- 24 Avoid contact with skin.

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

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

 $RID: R\`eglement$ international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

(Contd. on page 6)



Printing date 24.06.2009 Revision: 23.06.2009

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 $ICAO-TI: \ Technical\ Instructions\ by\ the\ "International\ Civil\ Aviation\ Organization"\ (ICAO)$

EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(Contd. of page 5)

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