# ETHYLENE GLYCOL DIMETHYL ETHER

**1568**

October 2004

**CAS No: 110-71-4**
RTECS No: KI1451000
UN No: 2252
EC No: 603-031-00-3

1,2-Dimethoxyethane
1,2-Ethanediol, dimethyl ether
Monoglyme
2,5-Dioxahexane
EGDME
$C_4H_{10}O_2$ / $CH_3OCH_2CH_2OCH_3$
Molecular mass: 90.1

| TYPES OF HAZARD/ EXPOSURE | ACUTE HAZARDS/SYMPTOMS | PREVENTION | FIRST AID/FIRE FIGHTING |
|---|---|---|---|
| **FIRE** | Highly flammable. | NO open flames, NO sparks, and NO smoking. | Water spray, foam, powder, carbon dioxide. |
| **EXPLOSION** | Vapour/air mixtures are explosive. | Closed system, ventilation, explosion-proof electrical equipment and lighting. | In case of fire: keep drums, etc., cool by spraying with water. |
| **EXPOSURE** | **See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.** | **AVOID ALL CONTACT!** | |
| **Inhalation** | | Ventilation, local exhaust, or breathing protection. | Fresh air, rest. |
| **Skin** | MAY BE ABSORBED! | Protective gloves. Protective clothing. | Remove contaminated clothes. Rinse skin with plenty of water or shower. |
| **Eyes** | Redness. | Safety spectacles. | First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor. |
| **Ingestion** | Nausea. | Do not eat, drink, or smoke during work. | Rinse mouth. Give plenty of water to drink. |

| SPILLAGE DISPOSAL | PACKAGING & LABELLING |
|---|---|
| Remove all ignition sources. Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible. Personal protection: filter respirator for organic gases and vapours. | F Symbol<br>T Symbol<br>R: 60-61-11-19-20<br>S: 53-45<br>UN Hazard Class: 3<br>UN Pack Group: II |

| EMERGENCY RESPONSE | SAFE STORAGE |
|---|---|
| Transport Emergency Card: TEC (R)-30S2252<br>NFPA Code: H2; F2; R0 | Cool. Fireproof. Separated from strong oxidants. |

**IPCS**
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

## IMPORTANT DATA

**Physical State; Appearance**
COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Physical dangers**
The vapour is heavier than air and may travel along the ground; distant ignition possible.

**Chemical dangers**
The substance can readily form explosive peroxides. Reacts violently with strong oxidants.

**Occupational exposure limits**
TLV not established.
MAK not established.

**Routes of exposure**
The substance can be absorbed into the body by ingestion, by inhalation and through the skin.

**Inhalation risk**
No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20/C.

**Effects of long-term or repeated exposure**
Animal tests show that this substance possibly causes toxicity to human reproduction or development.

## PHYSICAL PROPERTIES

Boiling point: 82-83/C
Melting point: -58/C
Relative density (water = 1): 0.86
Solubility in water: miscible
Vapour pressure, kPa at 20/C: 6.4

Relative vapour density (air = 1): 3.1
Relative density of the vapour/air-mixture at 20/C (air = 1): 1.13
Flash point: -2/C c.c.
Auto-ignition temperature: 202/C
Octanol/water partition coefficient as log Pow: -0.21

## ENVIRONMENTAL DATA

## NOTES

Check for peroxides prior to distillation; eliminate if found.
Dimethyl cellosolve is a trade name.

## ADDITIONAL INFORMATION