



DIETHYLENE GLYCOL

ICSC: 0619

Date of Peer Review:
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Ethylene diglycol
2,2'-Dihydroxyethyl ether
3-Oxypentane-1,5-diol
2,2'-Oxydiethanol
2,2'-Oxybisethanol

CAS # 111-46-6 **C₄H₁₀O₃ / (CH₂CH₂OH)₂O**
RTECS # ID5950000 **Molecular mass: 106.1**
UN #
EC Annex 1 Index # 603-140-00-6
EC/EINECS # 203-872-2

TYPES OF HAZARD / EXPOSURE	ACUTE HAZARDS / SYMPTOMS	PREVENTION	FIRST AID / FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
EXPLOSION			

EXPOSURE		PREVENT GENERATION OF MISTS!	
Inhalation		Ventilation.	Fresh air, rest.
Skin		Protective gloves.	Rinse skin with plenty of water or shower.
Eyes		Safety spectacles.	Rinse with plenty of water (remove contact lenses if easily possible).
Ingestion	Abdominal pain. Nausea. Vomiting. Diarrhoea. Dizziness. Drowsiness. Confusion. Unconsciousness.	Do not eat, drink, or smoke during work.	Give one or two glasses of water to drink. Refer immediately for medical attention. See Notes.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking liquid in sealable	

containers. Wash away spilled liquid with plenty of water.	
EMERGENCY RESPONSE	STORAGE
NFPA Code: H1; F1; R0	Dry. Well closed. 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 Commission of the European Communities © IPCS, CEC 2005 SEE IMPORTANT INFORMATION ON BACK

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IMPORTANT DATA

PHYSICAL STATE; APPEARANCE:
ODOURLESS, COLOURLESS VISCOUS HYGROSCOPIC LIQUID.

CHEMICAL DANGERS:
Reacts violently with strong oxidants causing fire and explosion hazard. Attacks some forms of plastic.

OCCUPATIONAL EXPOSURE LIMITS:
TLV not established.
MAK: 10 ppm; 44 mg/m³; Peak limitation category: II(4)
Pregnancy risk group: C (DFG 2007).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by ingestion.

INHALATION RISK:
A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C ; on spraying or dispersing, however, much faster.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance may cause effects on the kidneys, resulting in kidney impairment The substance may cause effects on the central nervous system and liver by ingestion. Exposure by ingestion may result in death.

PHYSICAL PROPERTIES

Boiling point: 245°C
Melting point: -6.5°C
Relative density (water = 1): 1.12
Solubility in water: miscible
Vapour pressure, Pa at 20°C: 2.7
Relative vapour density (air = 1): 3.7

Flash point: 124°C c.c.
Auto-ignition temperature: 229°C
Explosive limits, vol% in air: 1.6-10.8
Octanol/water partition coefficient as log Pow: -1.47

ENVIRONMENTAL DATA

NOTES

Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the CEC nor the IPCS nor any person acting on behalf of the CEC or the IPCS is responsible for the use which might be made of this information

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See Also:

[Toxicological Abbreviations](#)

[DIETHYLENE GLYCOL \(JECFA Evaluation\)](#)