

ETHYLENE GLYCOL**0270**

March 1999

CAS No: 107-21-1
RTECS No: KW2975000
EC No: 603-027-00-11,2-Ethanediol
1,2-Dihydroxyethane
HOCH₂CH₂OH
Molecular mass: 62.1

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	Cough. Dizziness. Headache.	Ventilation.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Skin	Dry skin.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Dullness. Nausea. Unconsciousness. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention. If no medical personnel are available and the patient is conscious, ingestion of alcoholic beverage may prevent kidney failure.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water. Personal protection: filter respirator for organic gases and vapours.	Xn Symbol R: 22 S: (2)

EMERGENCY RESPONSE	SAFE STORAGE
NFPA Code: H1; F1; R0	Separated from strong oxidants, strong bases. Dry. Ventilation along the floor.

IMPORTANT DATA

Physical State; Appearance

ODOURLESS, COLOURLESS VISCOUS HYGROSCOPIC LIQUID

Chemical dangers

On combustion, forms toxic gases. Reacts with strong oxidants and strong bases.

Occupational exposure limits

TLV: 100 mg/m³ (Ceiling value); A4 (not classifiable as a human carcinogen); (ACGIH 2004).

MAK: 10 ppm, 26 mg/m³; Peak limitation category: I(2); skin absorption (H); Pregnancy risk group: C; (DFG 2004).

Routes of exposure

The substance can be absorbed into the body by inhalation and through the skin.

Inhalation risk

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20/C.

Effects of short-term exposure

The substance irritates the eyes and the respiratory tract. The substance may cause effects on the kidneys and central nervous system, resulting in renal failure and brain injury. Exposure could cause lowering of consciousness.

Effects of long-term or repeated exposure

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

PHYSICAL PROPERTIES

Boiling point: 198/C
Melting point: -13/C
Relative density (water = 1): 1.1
Solubility in water: miscible
Vapour pressure, Pa at 20/C: 7
Relative vapour density (air = 1): 2.1

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.00
Flash point: 111/C (c.c.)
Auto-ignition temperature: 398/C
Explosive limits, vol% in air: 3.2-15.3
Octanol/water partition coefficient as log Pow: -1.93

ENVIRONMENTAL DATA

NOTES

The occupational exposure limit value should not be exceeded during any part of the working exposure.
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

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