

**DI(2,3-EPOXYPROPYL)ETHER****0145**

October 1997

CAS No: 2238-07-5  
RTECS No: KN2350000bis(2,3-Epoxypropyl)ether  
Diglycidyl ether  
2,2'-(Oxybis(methylene))bis-oxirane  
DGE  
 $C_6H_{10}O_3$  /  $C_2H_3OCH_2OCH_2C_2H_3O$   
Molecular mass: 130.2

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Powder, water spray, foam, carbon dioxide.
<b>EXPLOSION</b>	Above 64/C explosive vapour/air mixtures may be formed.	Above 64/C use a closed system, ventilation, and explosion-proof electrical equipment.	

EXPOSURE		STRICT HYGIENE!	
<b>Inhalation</b>	Dizziness. Shortness of breath. Sore throat. Unconsciousness. Weakness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Dry skin. Redness. Roughness. Skin burns. Pain. Blisters.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention if necessary.
<b>Eyes</b>	Redness. Pain. Blurred vision.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water.	

EMERGENCY RESPONSE	SAFE STORAGE
	Separated from strong oxidants. Ventilation along the floor.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH PUNGENT ODOUR.

**Chemical dangers**

The substance can presumably form explosive peroxides. May explode on heating. Reacts with strong oxidants.

**Occupational exposure limits**

TLV: 0.1 ppm as TWA; A4 (not classifiable as a human carcinogen); (ACGIH 2004).  
MAK: skin absorption (H); Carcinogen category: 3B; (DFG 2004).

**Routes of exposure**

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

**Inhalation risk**

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

**Effects of short-term exposure**

The substance is severely irritating to the eyes, the skin and the respiratory tract. Inhalation of vapour may cause lung oedema (see Notes). The substance may cause effects on the blood, kidneys, liver, testes. Exposure could cause lowering of consciousness. Medical observation is indicated.

**Effects of long-term or repeated exposure**

Repeated or prolonged contact with skin may cause dermatitis. Repeated or prolonged contact may cause skin sensitization. Animal tests show that this substance possibly causes toxic effects upon human reproduction.

### PHYSICAL PROPERTIES

Boiling point at 100 kPa: 260/C  
Relative density (water = 1): 1.26  
Solubility in water: see Notes  
Vapour pressure, Pa at 25/C: 12

Relative vapour density (air = 1): 4.5  
Relative density of the vapour/air-mixture at 20/C (air = 1): 1.00  
Flash point: 64/C  
Explosive limits, vol% in air: see Notes

### ENVIRONMENTAL DATA

### NOTES

Solubility in water, melting point, auto-ignition temperature and explosive limits are unknown in literature. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered. The odour warning when the exposure limit value is exceeded is insufficient. Check for peroxides prior to distillation; eliminate if found. Card has been partly updated in April 2005. See sections Occupational Exposure Limits, EU classification, 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