

**bis(CHLOROMETHYL) ETHER****0237**  
April 2005CAS No: 542-88-1  
RTECS No: KN1575000  
UN No: 2249  
EC No: 603-046-00-5BCME  
sym-Dichloromethyl ether  
1,1'-Dichlorodimethyl ether  
Oxybis(chloromethane)  
Chloro(chloromethoxy)methane  
(CH<sub>2</sub>Cl)<sub>2</sub>O  
Molecular mass: 115

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
<b>EXPLOSION</b>	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting.	In case of fire: cool drums, etc., by spraying with water but avoid contact of the substance with water.

EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
<b>Inhalation</b>	Burning sensation. Cough. Headache. Laboured breathing. Shortness of breath. Vomiting. Wheezing. Symptoms may be delayed (see Notes).	Closed system and ventilation.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Redness. Burning sensation. Skin burns.	Protective clothing. Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Redness. Pain. Blurred vision. Severe deep burns.	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>	Abdominal pain. Burning sensation in the throat and chest. Shock or collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Personal protection: complete protective clothing including self-contained breathing apparatus. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place.	T+ Symbol R: 45-10-22-24-26 S: 53-45 Note: E UN Hazard Class: 6.1 UN Subsidiary Risks: 3 UN Pack Group: I Airtight. Special material. Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-20G1TC NFPA Code: H4; F0; R0	Fireproof. Separated from food and feedstuffs. Dry. Cool.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH PUNGENT ODOUR.

**Physical dangers**

The vapour mixes well with air, explosive mixtures are easily formed.

**Chemical dangers**

The substance decomposes on heating and on contact with water producing toxic and corrosive fumes of hydrogen chloride (see ICSC 0163), formaldehyde. Attacks many metals, plastic, resins.

**Occupational exposure limits**

TLV: 0.001 ppm as TWA; A1 (confirmed human carcinogen); (ACGIH 2005).

MAK: Carcinogen category: 1; (DFG 2004).

**Routes of exposure**

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

**Inhalation risk**

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

**Effects of short-term exposure**

The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of high concentrations may cause lung oedema (see Notes). The effects may be delayed. Exposure may result in death.

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

This substance is carcinogenic to humans.

### PHYSICAL PROPERTIES

Boiling point: 104-106/C  
Melting point: -42/C  
Relative density (water = 1): 1.3  
Solubility in water: reaction

Vapour pressure, kPa at 25/C: 3.9  
Relative vapour density (air = 1): 4.0  
Flash point: <19/C c.c.  
Octanol/water partition coefficient as log Pow: 1.05

### ENVIRONMENTAL DATA

### NOTES

Depending on the degree of exposure, periodic medical examination is suggested. 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.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible