

# 1-CHLOROETHANE

0132  
April 2000

**CAS No: 75-00-3**  
RTECS No: KH7525000  
UN No: 1037  
EC No: 602-009-00-0

Ethyl chloride  
Monochloroethane  
(cylinder)  
 $C_2H_5Cl$  /  $CH_3CH_2Cl$   
Molecular mass: 64.5

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Extremely flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with powder, carbon dioxide.
<b>EXPLOSION</b>	Gas/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding) if in liquid state. Use non-sparking handtools.	In case of fire: keep cylinder cool by spraying with water.

EXPOSURE		STRICT HYGIENE!	
<b>Inhalation</b>	Dizziness. Dullness. Headache. Abdominal cramps.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
<b>Skin</b>	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves. Protective clothing.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<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>		Do not eat, drink, or smoke during work.	

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Personal protection: self-contained breathing apparatus. Do NOT let this chemical enter the environment.	F+ Symbol Xn Symbol R: 12-40-52/53 S: (2-)9-16-33-36/37-61 UN Hazard Class: 2.1 Special insulated cylinder. Special fittings.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-20S1037 or 20G2F NFPA Code: H 2; F 4; R 0	Fireproof.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS COMPRESSED LIQUEFIED GAS, WITH CHARACTERISTIC ODOUR.

**Physical dangers**

The gas is heavier than air and may travel along the ground; distant ignition possible.

**Chemical dangers**

The substance decomposes on heating or on burning producing toxic gases (hydrogen chloride - see ICSC 0163, phosgene - see ICSC 0007).

**Occupational exposure limits**

TLV: 100 ppm as TWA; (skin); A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2004).  
MAK: skin absorption (H); Carcinogen category: 3B; (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation.

**Inhalation risk**

A harmful concentration of this gas in the air will be reached very quickly on loss of containment.

**Effects of short-term exposure**

The substance is mildly irritating to the eyes, the skin and the respiratory tract. Rapid evaporation of the liquid may cause frostbite. The substance may cause effects on the central nervous system. Exposure far above the OEL may result in unconsciousness, cardiac dysrhythmia and death.

### PHYSICAL PROPERTIES

Boiling point: 12.5/C

Melting point: -138/C

Relative density (water = 1): 0.918

Solubility in water, g/100 ml at 20/C: 0.574

Vapour pressure, kPa at 20/C: 133.3

Relative vapour density (air = 1): 2.22

Flash point: -50/C c.c.

Auto-ignition temperature: 519/C

Explosive limits, vol% in air: 3.6-14.8

Octanol/water partition coefficient as log Pow: 1.54

### ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

### NOTES

Use of alcoholic beverages enhances the harmful effect.

Rinse contaminated clothes (fire hazard) with plenty of water.

Do NOT use in the vicinity of a fire or a hot surface, or during welding.

Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.

Card has been partly updated in April 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