

METHYL MERCAPTAN

0299

June 2003

CAS No: 74-93-1

RTECS No: PB4375000

UN No: 1064

EC No: 016-021-00-3

Methanethiol
Mercaptomethane
Methyl sulfhydrate
Thiomethanol
(cylinder)
CH₃SH
Molecular mass: 48.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Extremely flammable.	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.
EXPLOSION	Gas/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting.	In case of fire: keep cylinder cool by spraying with water.

EXPOSURE		STRICT HYGIENE!	
Inhalation	Cough. Sore throat. Dizziness. Headache. Nausea. Vomiting. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Skin	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	Remove contaminated clothes. Refer for medical attention. ON FROSTBITE: rinse with plenty of water, do NOT remove clothes.
Eyes	Redness. Pain.	Safety goggles, 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.
Ingestion			

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Do NOT let this chemical enter the environment. Personal protection: self-contained breathing apparatus.	<p>EU classification</p> <p>F+ Symbol T Symbol N Symbol R: 12-23-50/53 S: (2-)16-25-60-61</p> <p>UN classification</p> <p>UN Hazard Class: 2.3 UN Subsidiary Risks: 2.1</p> <p>Marine pollutant.</p>

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-20G2TF NFFPA Code: H 4; F 4; R 0	Fireproof. Separated from strong oxidants, acids. Cool. Store in an area without drain or sewer access.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS 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 burning producing toxic fumes including sulfur oxides and hydrogen sulfide. Reacts violently with strong oxidants. Reacts with water, steam or acids to form flammable and toxic gas.

Occupational exposure limits

TLV: 0.5 ppm as TWA; (ACGIH 2004).
MAK: 0.5 ppm, 1.0 mg/m³; Peak limitation category: II(2); Pregnancy risk group: D; (DFG 2006).

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 irritating to the eyes and the respiratory tract. The substance may cause effects on the central nervous system, resulting in respiratory depression. Exposure at high levels may result in unconsciousness. Exposure at high levels may result in death. The effects may be delayed. Medical observation is indicated.

PHYSICAL PROPERTIES

Boiling point: 6/C
Melting point: -123/C
Relative density (water = 1): 0.9
Solubility in water, g/100 ml at 20/C: 2.3

Vapour pressure, kPa at 26.1/C: 202
Relative vapour density (air = 1): 1.66
Flash point: Flammable Gas
Explosive limits, vol% in air: 3.9-21.8

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.

NOTES

Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.
Card has been partly updated in October 2004. See sections Occupational Exposure Limits, EU classification, Emergency Response.
Card has been partially updated in July 2007: see Occupational Exposure Limits.
Card has been partially updated in January 2008: see Storage.

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