

1,1-DICHLOROETHANE

0249

September 1993

CAS No: 75-34-3

RTECS No: KI0175000

UN No: 2362

EC No: 602-011-00-1

Ethane, 1,1-dichloro-

Ethylidene chloride

CH₃CHCl₂

Molecular mass: 99.0

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Water spray, foam, powder, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		PREVENT GENERATION OF MISTS!	
Inhalation	Dizziness. Drowsiness. Dullness. Nausea. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Dry skin. Roughness.	Protective gloves	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Burning sensation. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL

Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Personal protection: self-contained breathing apparatus.

PACKAGING & LABELLING

F Symbol
Xn Symbol
R: 11-22-36/37-52/53
S: (2-)16-23-61
UN Hazard Class: 3
UN Pack Group: II

Marine pollutant.

EMERGENCY RESPONSE

Transport Emergency Card: TEC (R)-30GF1-I+II
NFPA Code: H 2; F 3; R 0

SAFE STORAGE

Fireproof. Separated from: see Chemical Dangers. Cool.

IPCS

International
Programme on
Chemical Safety



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SEE IMPORTANT INFORMATION ON THE BACK.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers

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

Chemical dangers

The substance decomposes on heating and on burning producing toxic and corrosive fumes including phosgene (see ICSC 0007) and hydrogen chloride (see ICSC 0163). Reacts violently with strong oxidants, alkali metals and earth-alkali metals, powdered metals, causing fire and explosion hazard. Attacks aluminium, iron and polyethylene. Contact with strong caustic will cause formation of flammable and toxic acetaldehyde gas.

Occupational exposure limits

TLV: 100 ppm as TWA; A4 (not classifiable as a human carcinogen); (ACGIH 2004).

MAK: 100 ppm, 410 mg/m³; Peak limitation category: II(2); Pregnancy risk group: D; (DFG 2004).

Routes of exposure

The substance can be absorbed into the body by inhalation 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 may cause effects on the central nervous system. Exposure at high levels may result in unconsciousness.

Effects of long-term or repeated exposure

The liquid defats the skin. The substance may have effects on the kidneys and liver.

PHYSICAL PROPERTIES

Boiling point: 57/C

Melting point: -98/C

Relative density (water = 1): 1.2

Solubility in water, g/100 ml at 20/C: 0.6

Vapour pressure, kPa at 20/C: 24

Relative vapour density (air = 1): 3.4

Flash point: -6/C c.c.

Auto-ignition temperature: 458/C

Explosive limits, vol% in air: 5.6-11.4

Octanol/water partition coefficient as log Pow: 1.8

ENVIRONMENTAL DATA

NOTES

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

Card has been partly updated in October 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 for the use which might be made of this information