

CAS No: 13838-16-9
RTECS No: KN6800000

2-Chloro-1,1,2-trifluoroethyl difluoromethyl ether
2-Chloro-1-(difluoromethoxy)-1,1,2-trifluoroethane
Ethrane
Ether, 2-chloro-1,1,2-trifluoroethyl difluoromethyl
 $C_3H_2ClF_5O$ / CHF_2OCF_2CHClF
Molecular mass: 184.50

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE			
Inhalation	Cough. Sore throat. Drowsiness. Weakness. Unconsciousness. See Notes.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Skin	Redness. Dry skin.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety spectacles, 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	(See Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. (Extra personal protection: self-contained breathing apparatus).	

EMERGENCY RESPONSE	STORAGE
	Keep in a well-ventilated room.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers

The vapour is heavier than air and may accumulate in lowered spaces causing a deficiency of oxygen.

Chemical dangers

The substance decomposes on heating producing toxic and corrosive fumes (hydrogen chloride, hydrogen fluoride). Attacks some plastic and rubber.

Occupational exposure limits

TLV: 75 ppm as TWA; A4; (ACGIH 2002).

MAK: 20 ppm; Peak limitation category: II(8); Pregnancy risk group: C; (DFG 2002).

Routes of exposure

The substance can be absorbed into the body by inhalation of its vapour 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 irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the central nervous system and cardiovascular system. Exposure at high levels may result in unconsciousness.

PHYSICAL PROPERTIES

Boiling point: 56.5°C

Relative density (water = 1): 1.52

Solubility in water: poor

Vapour pressure, kPa at 20°C: 23.3

Relative vapour density (air = 1): 1.9

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.12

Explosive limits, vol% in air: 4.25-?

ENVIRONMENTAL DATA

NOTES

Other names: Anesthetic compound no. 347, NCS-115944, Alyrane, Efrane, Ohio 347.

Other CAS numbers: (+)-enflurane CAS 22194-21-4; (-)-enflurane CAS 22194-22-5.

Check oxygen content before entering area.

High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death.

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