

# CARBON TETRACHLORIDE

0024  
April 2000

CAS No: 56-23-5  
RTECS No: FG4900000  
UN No: 1846  
EC No: 602-008-00-5

Tetrachloromethane  
Tetrachlorocarbon  
Tetra  
CCl<sub>4</sub>  
Molecular mass: 153.8

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>			In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE		AVOID ALL CONTACT!	
<b>Inhalation</b>	Dizziness. Drowsiness. Headache. Nausea. Vomiting.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Redness. Pain.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Redness. Pain.	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. Diarrhoea. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
Collect leaking liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment. Personal protection: complete protective clothing including self-contained breathing apparatus.	T Symbol N Symbol R: 23/24/25-40-48/23-52/53-59 S: (1/2-)23-36/37-45-59-61 UN Hazard Class: 6.1 UN Pack Group: II	Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61S1846 NFPA Code: H 3; F 0; R 0	Separated from food and feedstuffs, metals (see Chemical Dangers). Ventilation along the floor. Cool.

## IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Physical dangers**

The vapour is heavier than air.

**Chemical dangers**

On contact with hot surfaces or flames this substance decomposes forming toxic and corrosive fumes (hydrogen chloride ICSC0163, chlorine fumes ICSC0126, phosgene ICSC0007). Reacts with some metals such as aluminium, magnesium, zinc causing fire and explosion hazard.

**Occupational exposure limits**

TLV: 5 ppm as TWA, 10 ppm as STEL; (skin); A2 (suspected human carcinogen); (ACGIH 2004).  
MAK: 0.5 ppm, 3.2 mg/m<sup>3</sup>; Peak limitation category: II(2); skin absorption (H); Carcinogen category: 4; Pregnancy risk group: D; (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation, 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 irritating to the eyes. The substance may cause effects on the liver, kidneys and central nervous system, resulting in unconsciousness. Medical observation is indicated.

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

Repeated or prolonged contact with skin may cause dermatitis. This substance is possibly carcinogenic to humans.

## PHYSICAL PROPERTIES

Boiling point: 76.5/C

Melting point: -23/C

Relative density (water = 1): 1.59

Solubility in water, g/100 ml at 20/C: 0.1 poor

Vapour pressure, kPa at 20/C: 12.2

Relative vapour density (air = 1): 5.3

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.5

Octanol/water partition coefficient as log Pow: 2.64

## ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to its impact on the ozone layer.

## NOTES

Use of alcoholic beverages enhances the harmful effect.

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

The odour warning when the exposure limit value is exceeded is insufficient.

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

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