



2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN		ICSC: 1467	
Date of Peer Review: November 2003			
Dibenzo [b,e] [1,4]dioxin, 2,3,7,8-tetrachloro- 2,3,7,8-TCDD 2,3,7,8-Tetrachloro-1,4-dioxin			
CAS #	1746-01-6	$C_{12}H_4Cl_4O_2$	
RTECS #	HP3500000	Molecular mass: 322	
UN #	2811		
EC #			
TYPES OF HAZARD / EXPOSURE	ACUTE HAZARDS / SYMPTOMS	PREVENTION	FIRST AID / FIRE FIGHTING
FIRE	Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: powder, water spray, foam, carbon dioxide.
EXPLOSION			
EXPOSURE		AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Chloracne. Symptoms may be delayed.	Use appropriate engineering controls.	Fresh air, rest. Refer for medical attention.
Skin	MAY BE ABSORBED! (See Inhalation). Redness. Pain.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes	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.
Ingestion	(See Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Give a slurry of activated charcoal in water to drink. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.
SPILLAGE DISPOSAL		PACKAGING & LABELLING	
Evacuate danger area! Consult an expert! Chemical protection suit including self-contained breathing apparatus.		EU Classification UN Classification UN Hazard Class: 6.1 UN Pack Group: I	
EMERGENCY RESPONSE		SAFE STORAGE	
Transport Emergency Card: TEC (R)-61GT2-I		Separated from food and feedstuffs.	
Prepared in the context of cooperation			

IPCS
International
Programme on
Chemical Safety



between the International Programme on
Chemical Safety and the Commission of
the European Communities © IPCS, CEC
2004

**SEE IMPORTANT INFORMATION ON
BACK**

2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN

ICSC: 1467

IMPORTANT DATA

PHYSICAL STATE; APPEARANCE:
COLOURLESS TO WHITE NEEDLE-LIKE
CRYSTALS

CHEMICAL DANGERS:
The substance decomposes on heating to 750-800°
C and under the influence of UV light producing
chlorine.

OCCUPATIONAL EXPOSURE LIMITS:
TLV not established.
MAK: (Inhalable fraction) 10⁻⁸ mg/m³; Peak
limitation category: II(8); skin absorption (H);
Carcinogen category: 4; Pregnancy risk group: C;
(DFG 2003).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by
inhalation of dust, through the skin and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful
concentration of airborne particles can, however, be
reached quickly when dispersed.

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 cardiovascular system,
gastrointestinal tract, liver, nervous system and
endocrine system. The effects may be delayed.

**EFFECTS OF LONG-TERM OR REPEATED
EXPOSURE:**
Repeated or prolonged contact with skin may cause
dermatitis. The substance may have effects on the
bone marrow, endocrine system, immune system,
liver and nervous system. This substance is
carcinogenic to humans. Animal tests show that this
substance possibly causes toxicity to human
reproduction or development.

PHYSICAL PROPERTIES

Melting point: 305-306°C
Density: 1.8 g/cm³
Solubility in water: none
Vapour pressure, Pa at 25°C: negligible

Octanol/water partition coefficient as log Pow: 6.8-
7.02

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. This substance may be hazardous in the environment; special attention should be given to soil contamination. Bioaccumulation of this chemical may occur in fish, in plants, in mammals and in milk. It is strongly advised that this substance does not enter the environment.

NOTES

This chemical is only produced for research purposes, but could be generated as a by-product from chemical processes or fires.
Card has been partly updated in April 2005. See section Occupational Exposure Limits.

ADDITIONAL INFORMATION

LEGAL NOTICE	Neither the CEC nor the IPCS nor any person acting on behalf of the CEC or the IPCS is responsible for the use which might be made of this information
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See Also:

[Toxicological Abbreviations](#)