

PENTACHLOROPHENOL

0069
May 2003

CAS No: 87-86-5
RTECS No: SM6300000
UN No: 3155
EC No: 604-002-00-8

C₆Cl₅OH
Molecular mass: 266.4

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Liquid formulations containing organic solvents may be flammable.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			

EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN! AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Cough. Dizziness. Drowsiness. Headache. Fever or elevated body temperature. Laboured breathing. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
Skin	MAY BE ABSORBED! Redness. Blisters. (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention. Wear protective gloves when administering first aid.
Eyes	Redness. Pain.	Safety goggles, 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	Abdominal cramps. Diarrhoea. Nausea. Unconsciousness. Vomiting. Weakness. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. Complete protective clothing. (Extra personal protection: P3 filter respirator for toxic particles.)	T+ Symbol N Symbol R: 24/25-26-36/37/38-40-50/53 S: (1/2-)22-36/37-45-52-60-61 UN Hazard Class: 6.1 UN Pack Group: II Do not transport with food and feedstuffs. Severe marine pollutant.

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-61GT2-II NFPA Code: H 3; F 0; R 0	Provision to contain effluent from fire extinguishing. Separated from strong oxidants, food and feedstuffs. Keep in a well-ventilated room.

IMPORTANT DATA

Physical State; Appearance

WHITE CRYSTALS OR SOLID IN VARIOUS FORMS, WITH CHARACTERISTIC ODOUR.

Chemical dangers

The substance decomposes on heating above 200°C, producing toxic and corrosive fumes including dioxins. Reacts violently with strong oxidants.

Occupational exposure limits

TLV: 0.5 mg/m³ as TWA; (skin); A3; BEI issued; (ACGIH 2003). MAK: H; Carcinogen category: 2; (DFG 2002).

Routes of exposure

The substance can be absorbed into the body by inhalation, 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, resulting in cardiac disorders and heart failure.

Effects of long-term or repeated exposure

The substance may have effects on the central nervous system, kidneys, liver, lungs, immune system, thyroid. This substance is possibly carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point (decomposes): 309°C

Melting point: 191°C

Density: 1.98

Solubility in water, g/100 ml at 20°C: 0.001

Vapour pressure, Pa at 20°C: 0.02

Relative vapour density (air = 1): 9.2

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.00

Octanol/water partition coefficient as log Pow: 5.01

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

NOTES

The commercial product may contain very toxic impurities (dioxins).

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

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