CHLORDANE (TECHNICAL PRODUCT)

0740

March 1998

CAS No: 57-74-9
RTECS No:
UN No: 2996
EC No: 602-047-00-8

1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methanoindene
1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methano-1H-indene
$C_{10}H_6Cl_8$
Molecular mass: 409.8

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Alcohol-resistant foam, powder, carbon dioxide.
EXPLOSION			
EXPOSURE		**PREVENT GENERATION OF MISTS! STRICT HYGIENE! AVOID EXPOSURE OF ADOLESCENTS AND CHILDREN!**	**IN ALL CASES CONSULT A DOCTOR!**
Inhalation	(See Ingestion).	Breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
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	Confusion. Convulsions. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rest. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
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. Do NOT wash away into sewer. Personal protection: chemical protection suit including self-contained breathing apparatus.	Xn Symbol N Symbol R: 21/22-40-50/53 S: (2-)36/37-60-61 UN Hazard Class: 6.1 UN Pack Group: III	Do not transport with food and feedstuffs. Severe marine pollutant.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT6-III	Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs, bases and incompatible materials. See Chemical Dangers. Well closed. Keep in a well-ventilated room.

IPCS
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

IMPORTANT DATA

Physical State; Appearance
TECHNICAL: LIGHT YELLOW TO AMBER VISCOUS LIQUID

Chemical dangers
The substance decomposes on burning, on contact with bases producing toxic fumes including phosgene, hydrogen chloride. Attacks iron, zinc, plastic, rubber and coatings.

Occupational exposure limits
TLV: 0.5 mg/m^3 as TWA; (skin); A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2004).
MAK: (Inhalable fraction) 0.5 mg/m^3; Peak limitation category: II(8); skin absorption (H); Carcinogen category: 3B; (DFG 2004).

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 on spraying.

Effects of short-term exposure
Exposure at high levels may result in disorientation, tremors, convulsions, respiratory failure and death. Medical observation is indicated.

Effects of long-term or repeated exposure
The substance may have effects on the liver and immune system, resulting in tissue lesions and liver impairment. This substance is possibly carcinogenic to humans.

PHYSICAL PROPERTIES

Boiling point at 0.27kPa: 175/C
Relative density (water = 1): 1.59-1.63
Solubility in water: none
Vapour pressure, Pa at 25/C: 0.0013
Octanol/water partition coefficient as log Pow: 2.78

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. This substance may be hazardous to the environment; special attention should be given to soil organisms, honey bees. It is strongly advised that this substance does not enter the environment. The substance may cause long-term effects in the aquatic environment.

NOTES

If the substance is formulated with solvents also consult the ICSCs of these materials.
Carrier solvents used in commercial formulations may change physical and toxicological properties.
Belt, Chlor Kil, Chlortox, Corodan, Gold Crest, Intox, Kypchlor, Niran, Octachlor, Sydane, Synklor, Termi-Ded, Topiclor, and Toxichlor are trade names.
Also consult ICSC 0743 Heptachlor.
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

ADDITIONAL INFORMATION