

# HEXACHLOROCYCLOHEXANE (MIXED ISOMERS)

0487

November 1998

CAS No: 608-73-1

RTECS No: GV3150000

UN No: 2761

EC No: 602-042-00-0

1,2,3,4,5,6-Hexachlorocyclohexane (mixed isomers)

BHC/HCH (mixture of isomers)

1,2,3,4,5,6-Benzenehexachloride (mixed isomers)

C<sub>6</sub>H<sub>6</sub>Cl<sub>6</sub> / ClCH(CHCl)<sub>4</sub>CHCl

Molecular mass: 290.8

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: all extinguishing agents allowed.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST! AVOID ALL CONTACT! AVOID EXPOSURE OF ADOLESCENTS AND CHILDREN!</b>	<b>IN ALL CASES CONSULT A DOCTOR!</b>
<b>Inhalation</b>	Confusion. Dizziness. Headache. Vomiting. Weakness.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
<b>Eyes</b>	Redness.	Face shield, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Convulsions. Diarrhoea. Dizziness. Drowsiness. Laboured breathing. Vomiting. Tremors. Muscles spasms. Depression.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Rest. Refer for medical attention.

## SPILLAGE DISPOSAL

Do NOT wash away into sewer. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: P3 filter respirator for toxic particles).

## PACKAGING & LABELLING

**EU classification**  
T Symbol  
N Symbol  
R: 21-25-40-50/53  
S: (1/2-)22-36/37-45-60-61  
Note: C  
**UN classification**  
UN Hazard Class: 6.1  
UN Pack Group: III

Do not transport with food and feedstuffs.

## EMERGENCY RESPONSE

Transport Emergency Card: TEC (R)-61G43c

## SAFE STORAGE

Provision to contain effluent from fire extinguishing. Separated from strong bases, food and feedstuffs. Well closed.

**IPCS**

International Programme on Chemical Safety



Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission ©  
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SEE IMPORTANT INFORMATION ON THE BACK.

## IMPORTANT DATA

**Physical State; Appearance**

WHITE TO BROWNISH FLAKES OR POWDER, WITH CHARACTERISTIC ODOUR.

**Chemical dangers**

The substance decomposes on heating producing highly toxic fumes including phosgene (ICSC 0007), chlorine (ICSC 0126) and hydrogen chloride (ICSC 0163), and on contact with alkalis.

**Occupational exposure limits**

TLV: as gamma-isomer 0.5 mg/m<sup>3</sup> (as TWA) ; (skin); A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2006). MAK: 0.5 mg/m<sup>3</sup> (Inhalable fraction); skin absorption (H); Peak limitation category: II(8); (DFG 2006).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its aerosol, 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 by dispersion.

**Effects of short-term exposure**

The substance may cause effects on the the central nervous system. The effects may be delayed. See Notes.

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

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the the central nervous system, bone marrow, liver, sex hormones and genital system. This substance is possibly carcinogenic to humans. Animal tests show that this substance possibly causes toxic effects upon human reproduction.

## PHYSICAL PROPERTIES

Boiling point: see Notes  
Melting point: see Notes  
Density: 1.9 g/cm<sup>3</sup>  
Solubility in water: none

Vapour pressure, Pa at 20/C: 4.2  
Relative vapour density (air = 1): 1.85  
Relative density of the vapour/air-mixture at 20/C (air = 1): 1

## ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in aquatic organisms. It is strongly advised not to let the chemical enter into the environment because it persists in the environment. The substance may cause long-term effects in the aquatic environment.

## NOTES

Boiling point, melting point and vapour pressure are depending on isomeric composition.  
Depending on the degree of exposure, periodic medical examination is indicated.  
The symptoms of convulsions do not become manifest until 0.5 to several hours.  
Carrier solvents used in commercial formulations may change physical and toxicological properties.  
Do NOT take working clothes home.  
Benzex, FBHC, Kotol, Submar, Hilbeech, Hexafor, Hexablanc, Hexamul, Hexapoudre, Gyben, Trives T, Agrocide, Ambrocide, Benesan, Benexane, Borer-Tox, Gamosan are trade names.  
Also consult ICSC # 0053, 0795, 0796.  
Card has been partially updated in July 2007: see Occupational Exposure Limits.

## 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