

HEXACHLORO BENZENE

HCZ

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Benzene, hexachloro-Pentachlorophenyl chloride Perchlorobenzene Phenyl perchloryl	Solid, needle-like crystals Sinks in water.	White	Faint, not unpleasant
<p>AVOID CONTACT WITH SOLID AND DUST. KEEP PEOPLE AWAY. Wear self-contained positive pressure breathing apparatus and full protective clothing. Call fire department. Notify local health and pollution control agencies.</p>			
Fire	Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Wear self-contained positive pressure breathing apparatus and full protective clothing. Extinguish small fires: dry chemical, CO ₂ , water spray or foam; large fires: water spray, fog or foam. Move container from fire area if you can do it without risk.		
Exposure	CALL FOR MEDICAL AID. DUST Harmful if inhaled. Irritating to eyes, skin and mucous membranes. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. If in eyes or on skin, flush with running water for at least 15 min.; hold eyelids open if necessary. SOLID Harmful if swallowed. Irritating to eyes and skin. IF IN EYES OR ON SKIN, flush with running water for at least 15 min.; hold eyelids open if necessary. Remove and isolate contaminated clothing and shoes at the site. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.		
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Collection Systems: Dredge

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
 2.2 **Formula:** C₆Cl₆
 2.3 **IMO/UN Designation:** 6.1/2729
 2.4 **DOT ID No.:** 2729
 2.5 **CAS Registry No.:** 118-74-1
 2.6 **NAERG Guide No.:** 152
 2.7 **Standard Industrial Trade Classification:** 51139

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Wear self-contained positive pressure breathing apparatus and full protective clothing.
- 3.2 **Symptoms Following Exposure:** Harmful by dust inhalation or if swallowed. Irritating to eyes, skin and mucous membranes. Prolonged periods of ingestion may cause cutaneous porphyria.
- 3.3 **Treatment of Exposure:** INHALATION: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. EYES OR SKIN: Flush with running water for at least 15 min.; hold eyelids open if necessary. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site. INGESTION: If victim is conscious, use gastric lavage to clean out stomach followed by saline catharsis. If victim is unconscious or having convulsions, do nothing except keep victim warm.
- 3.4 **TLV-TWA:** 0.002 mg/m³
 3.5 **TLV-STEL:** Not listed.
 3.6 **TLV-Ceiling:** Not listed.
 3.7 **Toxicity by Ingestion:** Grade 1; LD₅₀ = 10.0 g/kg (rat)
 3.8 **Toxicity by Inhalation:** Currently not available.
 3.9 **Chronic Toxicity:** Can cause mutagenic, reproductive and tumorigenic effects. It is an animal carcinogen and a human suspect carcinogen. Chronic ingestion has caused enlargement of the thyroid and lymph nodes, skin photosensitization and abnormal growth of body hair. May cause liver, kidney and lung damage.
 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available
 3.11 **Liquid or Solid Characteristics:** Solid may cause slight irritation of the skin.
 3.12 **Odor Threshold:** Currently not available
 3.13 **IDLH Value:** Not listed.
 3.14 **OSHA PEL-TWA:** Not listed.
 3.15 **OSHA PEL-STEL:** Not listed.
 3.16 **OSHA PEL-Ceiling:** Not listed.
 3.17 **EPA AEGL:** Not listed

4. FIRE HAZARDS

- 4.1 **Flash Point:** 468°F. C.C.
 4.2 **Flammable Limits in Air:** Currently not available
 4.3 **Fire Extinguishing Agents:** Small fires: dry chemical, CO₂, fog or foam; large fires: water spray, fog or foam.
 4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
 4.5 **Special Hazards of Combustion Products:** They contain highly toxic chloride fumes.
 4.6 **Behavior in Fire:** Produces highly toxic chloride fumes.
 4.7 **Auto Ignition Temperature:** Currently not available
 4.8 **Electrical Hazards:** Currently not available
 4.9 **Burning Rate:** Currently not available
 4.10 **Adiabatic Flame Temperature:** Currently not available
 4.11 **Stoichiometric Air to Fuel Ratio:** 0.0 (calc.)
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** Currently not available (calc.)
 4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** No reaction
 5.2 **Reactivity with Common Materials:** Currently not available
 5.3 **Stability During Transport:** Stable
 5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent
 5.5 **Polymerization:** Not pertinent
 5.6 **Inhibitor of Polymerization:** Not pertinent

6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:** >0.32 ppm/336 hr/guppy/LC₅₀/fresh water
 6.2 **Waterfowl Toxicity:** Currently not available
 6.3 **Biological Oxygen Demand (BOD):** Currently not available
 6.4 **Food Chain Concentration Potential:** Currently not available
 6.5 **GESAMP Hazard Profile:** Not listed

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** 97%
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** Not listed
 7.4 **Venting:** Not pertinent
 7.5 **IMO Pollution Category:** Currently not available
 7.6 **Ship Type:** Currently not available
 7.7 **Barge Hull Type:** Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Keep Away From Food
 8.2 **49 CFR Class:** 6.1
 8.3 **49 CFR Package Group:** III
 8.4 **Marine Pollutant:** No
 8.5 **NFPA Hazard Classification:**
- | Category | Classification |
|----------------------|----------------|
| Health Hazard (Blue) | 1 |
| Flammability (Red) | 1 |
| Instability (Yellow) | 0 |
- 8.6 **EPA Reportable Quantity:** 10 pounds
 8.7 **EPA Pollution Category:** A
 8.8 **RCRA Waste Number:** U127/D032
 8.9 **EPA FWPCA List:** Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
 9.2 **Molecular Weight:** 284.78
 9.3 **Boiling Point at 1 atm:** 589°F. = 309°C. = 583°K.
 9.4 **Freezing Point:** 446°F. = 230°C. = 503°K.
 9.5 **Critical Temperature:** 1025°F. = 552°C. = 825°K.
 9.6 **Critical Pressure:** 413 psia = 28.1 atm = 2.85 MN/m² (est.)
 9.7 **Specific Gravity:** 2.044 at 24°C.
 9.8 **Liquid Surface Tension:** Not pertinent
 9.9 **Liquid Water Interfacial Tension:** Not pertinent
 9.10 **Vapor (Gas) Specific Gravity:** 9.8
 9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent
 9.12 **Latent Heat of Vaporization:** Not pertinent
 9.13 **Heat of Combustion:** Currently not available
 9.14 **Heat of Decomposition:** Not pertinent
 9.15 **Heat of Solution:** Not pertinent
 9.16 **Heat of Polymerization:** Not pertinent
 9.17 **Heat of Fusion:** Currently not available
 9.18 **Limiting Value:** Currently not available
 9.19 **Reid Vapor Pressure:** Not pertinent

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	I N S O L U B I L I T Y	250	0.025	45	0.05378		N O T P E R T I N E N T
		275	0.050	250	0.00093		
		300	0.094	275	0.00181		
		325	0.170	300	0.00330		
		350	0.293	325	0.00572		
		375	0.486	350	0.00953		
		400	0.781	375	0.01532		
		425	1.219	400	0.02390		
		450	1.855	425	0.03628		
		475	2.759	475	0.07804		
	500	4.023	500	0.11110			