

# TOXAPHENE

TXP

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Octachlorocamphene	Waxy solid or in solution	Amber	Mild turpentine odor
Solid sinks in water, solution floats on water.			
Keep people away. Call fire department. Avoid contact with solid and solution. Notify local health and pollution control agencies. Protect water intakes.			
<b>Fire</b>	Solid not flammable, but usually dissolved in combustible liquid. <b>POISONOUS GASES ARE PRODUCED IN FIRE.</b> Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves). Extinguish with foam, dry chemical or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.		
<b>Exposure</b>	CALL FOR MEDICAL AID.  SOLID OR SOLUTION <b>POISONOUS IF SWALLOWED.</b> Irritating to skin and eyes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim quiet and warm.		
<b>Water Pollution</b>	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Solution is fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

<b>1. CORRECTIVE RESPONSE ACTIONS</b> Dilute and disperse Stop discharge Contain Collection Systems: Dredge Do not burn Salvage waterfowl	<b>2. CHEMICAL DESIGNATIONS</b> 2.1 CG Compatibility Group: Not listed. 2.2 Formula: C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub> 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: 2761 2.5 CAS Registry No.: 8001-35-2 2.6 NAERG Guide No.: 151 2.7 Standard Industrial Trade Classification: 51139
<b>3. HEALTH HAZARDS</b>	
3.1 <b>Personal Protective Equipment:</b> Chemical-type respirator; rubber gloves; chemical goggles or face shield. 3.2 <b>Symptoms Following Exposure:</b> May be absorbed through skin, lungs, or intestinal tract. Symptoms include salivation, leg and back muscle spasms, nausea, vomiting, hyperexcitability, tremors, shivering, clonic convulsions, then tetanic contractions of all skeletal muscles. Lethal doses cause respiratory failure. Respiration, affected as a result of the exertion from vomiting or convulsions, is first arrested because of tetanic muscular contractions, then increased in both amplitude and rate as the muscles relax. 3.3 <b>Treatment of Exposure:</b> If symptoms of poisoning appear, promptly remove the unabsorbed pesticide from the stomach by inducing vomiting with warm salty or soapy water (if the patient is conscious) or from the skin with soap and water. Keep patient warm and quiet. Call a physician. 3.4 <b>TLV-TWA:</b> 0.5 mg/m <sup>3</sup> (skin) 3.5 <b>TLV-STEL:</b> 1 mg/m <sup>3</sup> (skin) 3.6 <b>TLV-Ceiling:</b> Not listed. 3.7 <b>Toxicity by Ingestion:</b> Grade 4; LD <sub>50</sub> below 50 mg/kg (dog) 3.8 <b>Toxicity by Inhalation:</b> Currently not available. 3.9 <b>Chronic Toxicity:</b> Currently not available 3.10 <b>Vapor (Gas) Irritant Characteristics:</b> The solid is non-volatile. For solutions, see meta-xylene. 3.11 <b>Liquid or Solid Characteristics:</b> Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin. 3.12 <b>Odor Threshold:</b> Currently not available 3.13 <b>IDLH Value:</b> 200 mg/m <sup>3</sup> (skin) 3.14 <b>OSHA PEL-TWA:</b> 0.5 mg/m <sup>3</sup> (skin) 3.15 <b>OSHA PEL-STEL:</b> Not listed. 3.16 <b>OSHA PEL-Ceiling:</b> Not listed. 3.17 <b>EPA AEGL:</b> Not listed	

<b>4. FIRE HAZARDS</b> 4.1 <b>Flash Point:</b> 84°F C.C. (solution) 4.2 <b>Flammable Limits in Air:</b> 1.1%-6.4% (solvent only) 4.3 <b>Fire Extinguishing Agents:</b> Foam, dry chemical, or carbon dioxide 4.4 <b>Fire Extinguishing Agents Not to Be Used:</b> Water may be ineffective. 4.5 <b>Special Hazards of Combustion Products:</b> Toxic vapors are generated when heated. 4.6 <b>Behavior in Fire:</b> Solution in xylene may produce corrosive products when heated. 4.7 <b>Auto Ignition Temperature:</b> 986°F (solution) 4.8 <b>Electrical Hazards:</b> Not pertinent 4.9 <b>Burning Rate:</b> 5.8 mm/min. 4.10 <b>Adiabatic Flame Temperature:</b> Currently not available 4.11 <b>Stoichiometric Air to Fuel Ratio:</b> Not pertinent. 4.12 <b>Flame Temperature:</b> Currently not available 4.13 <b>Combustion Molar Ratio (Reactant to Product):</b> Not pertinent. 4.14 <b>Minimum Oxygen Concentration for Combustion (MOCC):</b> Not listed	<b>7. SHIPPING INFORMATION</b> 7.1 <b>Grades of Purity:</b> Technical; 40% dust concentrate; 90% solution in xylene 7.2 <b>Storage Temperature:</b> Ambient 7.3 <b>Inert Atmosphere:</b> No requirement 7.4 <b>Venting:</b> Sealed containers in well-ventilated area 7.5 <b>IMO Pollution Category:</b> Currently not available 7.6 <b>Ship Type:</b> Currently not available 7.7 <b>Barge Hull Type:</b> Currently not available
<b>5. CHEMICAL REACTIVITY</b> 5.1 <b>Reactivity with Water:</b> No reaction 5.2 <b>Reactivity with Common Materials:</b> No reaction 5.3 <b>Stability During Transport:</b> Stable 5.4 <b>Neutralizing Agents for Acids and Caustics:</b> Not pertinent 5.5 <b>Polymerization:</b> Not pertinent 5.6 <b>Inhibitor of Polymerization:</b> Not pertinent	<b>8. HAZARD CLASSIFICATIONS</b> 8.1 <b>49 CFR Category:</b> Poison 8.2 <b>49 CFR Class:</b> 6.1 8.3 <b>49 CFR Package Group:</b> II 8.4 <b>Marine Pollutant:</b> No 8.5 <b>NFPA Hazard Classification:</b> Not listed 8.6 <b>EPA Reportable Quantity:</b> 1 pound 8.7 <b>EPA Pollution Category:</b> X 8.8 <b>RCRA Waste Number:</b> P123 8.9 <b>EPA FWPCA List:</b> Yes
<b>6. WATER POLLUTION</b> 6.1 <b>Aquatic Toxicity:</b> 0.05 ppm/20 days/goldfish/100% kill/fresh water 0.02 ppm*/bluegill/100% kill/fresh water 0.0032 ppm/24 hr/spot/100% kill/salt water *Time period not specified. 6.2 <b>Waterfowl Toxicity:</b> 30.8 mg/kg 6.3 <b>Biological Oxygen Demand (BOD):</b> Currently not available 6.4 <b>Food Chain Concentration Potential:</b> None 6.5 <b>GESAMP Hazard Profile:</b> Not listed	<b>9. PHYSICAL &amp; CHEMICAL PROPERTIES</b> 9.1 <b>Physical State at 15° C and 1 atm:</b> Waxy solid 9.2 <b>Molecular Weight:</b> 414 (avg.) 9.3 <b>Boiling Point at 1 atm:</b> Decomposes 9.4 <b>Freezing Point:</b> 149–194°F = 65–90°C = 338–363°K 9.5 <b>Critical Temperature:</b> Not pertinent 9.6 <b>Critical Pressure:</b> Not pertinent 9.7 <b>Specific Gravity:</b> 1.6 at 15°C (solid) 9.8 <b>Liquid Surface Tension:</b> Not pertinent 9.9 <b>Liquid Water Interfacial Tension:</b> Not pertinent 9.10 <b>Vapor (Gas) Specific Gravity:</b> Not pertinent 9.11 <b>Ratio of Specific Heats of Vapor (Gas):</b> Not pertinent 9.12 <b>Latent Heat of Vaporization:</b> Not pertinent 9.13 <b>Heat of Combustion:</b> Not pertinent 9.14 <b>Heat of Decomposition:</b> Not pertinent 9.15 <b>Heat of Solution:</b> Not pertinent 9.16 <b>Heat of Polymerization:</b> Not pertinent 9.17 <b>Heat of Fusion:</b> Currently not available 9.18 <b>Limiting Value:</b> Currently not available 9.19 <b>Reid Vapor Pressure:</b> Currently not available

**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
	N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T

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 E		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T