

# P-CHLOROPHENOL

CPN

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> 4-Chlorophenol		Solid	White to straw	Medicinal odor
		Sinks in water.		
<p>Keep people away. Avoid contact with solid and dust. Avoid inhalation. Wear rubber overclothing (including gloves). Shut off ignition sources and call fire department. Notify local health and pollution control agencies.</p>				
<b>Fire</b>	<p>Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Irritating gases may be produced when heated. Wear goggles and self-contained breathing apparatus. Extinguish with water, dry chemicals, foam, or carbon dioxide.</p>			
<b>Exposure</b>	<p>CALL FOR MEDICAL AID. DUST Irritating to eyes, nose and throat. If inhaled will cause headache or dizziness. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p>SOLID Will burn skin and eyes. If swallowed will cause nausea and vomiting. Remove contaminated clothing and shoes. 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. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm. DO NOT INDUCE VOMITING.</p>			
<b>Water Pollution</b>	<p>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.</p>			

<p><b>1. CORRECTIVE RESPONSE ACTIONS</b> Dilute and disperse Stop discharge Contain Collection Systems: Pump; Dredge Chemical and Physical Treatment: Neutralize</p>	<p><b>2. CHEMICAL DESIGNATIONS</b> 2.1 CG Compatibility Group: Not listed. 2.2 Formula: 1, 4-ClC<sub>6</sub>H<sub>4</sub>OH 2.3 IMO/UN Designation: 6.1/2020 2.4 DOT ID No.: 2020 2.5 CAS Registry No.: 106-48-9 2.6 NAERG Guide No.: 153 2.7 Standard Industrial Trade Classification: 51244</p>
<p><b>3. HEALTH HAZARDS</b> 3.1 Personal Protective Equipment: Rubber gloves; face shield; boots and apron; respiratory protection 3.2 Symptoms Following Exposure: Inhalation causes headache, dizziness, weak pulse. Ingestion causes irritation of mouth and stomach; headache, dizziness, weak pulse. Contact with eyes causes severe irritation and burning. Contact with skin causes irritation and burn; if absorbed, causes same symptoms as inhalation. 3.3 Treatment of Exposure: INHALATION: move to fresh air; get medical attention if any symptoms develop. INGESTION: do not induce vomiting unless advised by a physician; give large amounts of milk, egg whites, or water and get medical help immediately; no specific antidote known. EYES: immediately flush with plenty of water for at least 30 min. SKIN: flush in safety shower while removing all contaminated clothing; wash with soap and water. 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 3; oral LD<sub>50</sub> = 500 mg/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: Currently not available 3.12 Odor Threshold: 30 ppm 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</p>	

## 4. FIRE HAZARDS

- 4.1 Flash Point: 250°F C.C.  
4.2 Flammable Limits in Air: Not pertinent (combustible solid)  
4.3 Fire Extinguishing Agents: Water, foam, dry chemical, carbon dioxide  
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.  
4.5 Special Hazards of Combustion  
Products: Toxic and irritating hydrogen chloride and chlorine gases may form in fires.  
4.6 Behavior in Fire: Currently not available  
4.7 Auto Ignition Temperature: Currently not available  
4.8 Electrical Hazards: Not pertinent  
4.9 Burning Rate: Not pertinent  
4.10 Adiabatic Flame Temperature: Currently not available  
4.11 Stoichiometric Air to Fuel Ratio: 30.9 (calc.)  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): 8.0 (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:  
0.7 ppm/96 hr/crab/lethal-range/sea water  
0.4 ppm/96 hr/crab/safe range/sea water  
14 ppm/24 hr/minnow/TL<sub>50</sub>/fresh water  
6.2 Waterfowl Toxicity: Currently not available  
6.3 Biological Oxygen Demand (BOD): Currently not available  
6.4 Food Chain Concentration Potential: None  
6.5 GESAMP Hazard Profile: Not listed

## 7. SHIPPING INFORMATION

- 7.1 Grades of Purity: Pure, 99%  
7.2 Storage Temperature: Ambient  
7.3 Inert Atmosphere: No requirement  
7.4 Venting: Open  
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: Yes  
8.5 NFPA Hazard Classification:  

Category	Classification
Health Hazard (Blue)	3
Flammability (Red)	1
Instability (Yellow)	0

8.6 EPA Reportable Quantity: Not listed.  
8.7 EPA Pollution Category: Not listed.  
8.8 RCRA Waste Number: Not listed  
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: 128.6  
9.3 Boiling Point at 1 atm: 428°F = 220°C = 493°K  
9.4 Freezing Point: 109°F = 43°C = 316°K  
9.5 Critical Temperature: Not pertinent  
9.6 Critical Pressure: Not pertinent  
9.7 Specific Gravity: 1.31 at 20°C (solid)  
9.8 Liquid Surface Tension: Not pertinent  
9.9 Liquid Water Interfacial Tension: Not pertinent  
9.10 Vapor (Gas) Specific Gravity: Not pertinent  
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent  
9.12 Latent Heat of Vaporization: 160 Btu/lb = 89 cal/g = 3.7 X 10<sup>5</sup> J/kg  
9.13 Heat of Combustion: -9,330 Btu/lb = -5,180 cal/g = -217 X 10<sup>3</sup> J/kg  
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: 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
77	3.200	376	6.963	376	0.09982		N O T  P E R T I N E N T
		378	7.178	378	0.10270		
		380	7.399	380	0.10560		
		382	7.625	382	0.10850		
		384	7.858	384	0.11160		
		386	8.096	386	0.11470		
		388	8.341	388	0.11790		
		390	8.591	390	0.12110		
		392	8.848	392	0.12450		
		394	9.111	394	0.12790		
		396	9.381	396	0.13130		
		398	9.657	398	0.13490		
		400	9.941	400	0.13850		
		402	10.230	402	0.14220		
		404	10.530	404	0.14600		
		406	10.830	406	0.14990		
		408	11.140	408	0.15390		
		410	11.460	410	0.15790		
		412	11.790	412	0.16210		
		414	12.130	414	0.16630		
		416	12.470	416	0.17060		
		418	12.820	418	0.17500		
		420	13.180	420	0.17950		
		422	13.540	422	0.18400		
		424	13.920	424	0.18870		
		426	14.310	426	0.19350		