

# CATECHOL

CTC

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> 1,2-Benzenediol Catechin 1,2-Dihydroxybenzene Oxyphenic acid Pyrocatechin Pyrocatechinic acid	Solid  Sinks and mixes with water.	White	Odorless
<p>Keep people away. Avoid contact with solid and dust. Avoid inhalation. Wear rubber overclothing (including gloves). Call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>			
<b>Fire</b>	<p>Combustible. POISONOUS GASES MAY BE PRODUCED WHEN HEATED. Wear goggles and self-contained breathing apparatus. Extinguish with dry chemicals, alcohol foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.</p>		
<b>Exposure</b>	<p>CALL FOR MEDICAL AID. DUST Irritating to eyes, nose and throat. If inhaled will cause coughing or difficult breathing. 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. Harmful if swallowed. 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 and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p>		
<b>Water Pollution</b>	<p>Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>		

### 1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse  
Stop discharge

### 2. CHEMICAL DESIGNATIONS

- 2.1 **CG Compatibility Group:** Not listed.  
2.2 **Formula:** 1, 2-HOC<sub>6</sub>H<sub>4</sub>OH  
2.3 **IMO/UN Designation:** Not listed  
2.4 **DOT ID No.:** Not listed  
2.5 **CAS Registry No.:** 120-80-9  
2.6 **NAERG Guide No.:** Not listed  
2.7 **Standard Industrial Trade Classification:** 51243

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Dust respirator if required; rubber gloves, apron, and boots; face shield  
3.2 **Symptoms Following Exposure:** Inhalation of dusts or mists may cause irritation of eyes, nose, and throat. Ingestion may cause convulsions and respiratory failure. Contact with eyes causes burns and possible permanent impairment of vision. Prolonged or repeated contact with skin may cause burn.  
3.3 **Treatment of Exposure:** INHALATION: if ill effects occur, get medical attention. INGESTION: promptly give milk or plenty of water and induce vomiting; get medical attention promptly; no specific antidote known. EYES and SKIN: immediately flush with plenty of water for at least 15 min.; for eyes get medical attention promptly; remove and wash all contaminated clothing before reuse.  
3.4 **TLV-TWA:** 5 ppm  
3.5 **TLV-STEL:** Not listed.  
3.6 **TLV-Ceiling:** Not listed.  
3.7 **Toxicity by Ingestion:** Grade 2; LD<sub>50</sub> = 0.5-5 g/kg (rat)  
3.8 **Toxicity by Inhalation:** Currently not available.  
3.9 **Chronic Toxicity:** Causes tumors in mice  
3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available  
3.11 **Liquid or Solid Characteristics:** Currently not available  
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:** (liquid) 278°F O.C. 261°F C.C.  
4.2 **Flammable Limits in Air:** Not pertinent (combustible solid)  
4.3 **Fire Extinguishing Agents:** Dry chemical, "alcohol" foam, carbon dioxide  
4.4 **Fire Extinguishing Agents Not to Be Used:** Water and foam may be ineffective.  
4.5 **Special Hazards of Combustion Products:** May form toxic fumes at high temperatures  
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):** 9.0 (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 Cautistics:** Not pertinent  
5.5 **Polymerization:** Not pertinent  
5.6 **Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:** 14 ppm/48 hr/goldfish/TL<sub>50</sub>  
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:** CP-high purity, 99.3+%; XP-extremely high purity, 99.8+%  
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:** Not listed  
8.2 **49 CFR Class:** Not pertinent  
8.3 **49 CFR Package Group:** Not listed.  
8.4 **Marine Pollutant:** No  
8.5 **NFPA Hazard Classification:** Not listed  
8.6 **EPA Reportable Quantity:** 100 pounds  
8.7 **EPA Pollution Category:** B  
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:** 110.11  
9.3 **Boiling Point at 1 atm:** 473.9°F = 245.5°C = 418.7°K  
9.4 **Freezing Point:** 219.7°F = 104.3°C = 377.5°K  
9.5 **Critical Temperature:** Not pertinent  
9.6 **Critical Pressure:** Not pertinent  
9.7 **Specific Gravity:** 1.344 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:** 3.81  
9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent  
9.12 **Latent Heat of Vaporization:** Not pertinent  
9.13 **Heat of Combustion:** -11,200 Btu/lb = -6,220 cal/g = -260 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:** 49.40 cal/g  
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
68	45.000	230	0.131	230	0.00195		N O T  P E R T I N E N T
		240	0.170	240	0.00249		
		250	0.218	250	0.00315		
		260	0.278	260	0.00396		
		270	0.352	270	0.00495		
		280	0.444	280	0.00615		
		290	0.555	290	0.00760		
		300	0.691	300	0.00933		
		310	0.855	310	0.01139		
		320	1.052	320	0.01383		
		330	1.287	330	0.01672		
		340	1.567	340	0.02010		
		350	1.899	350	0.02406		
		360	2.291	360	0.02867		
		370	2.751	370	0.03401		
		380	3.289	380	0.04018		
		390	3.916	390	0.04727		
		400	4.643	400	0.05540		
		410	5.484	410	0.06468		
		420	6.452	420	0.07523		
		430	7.564	430	0.08721		
		440	8.836	440	0.10070		
		450	10.290	450	0.11600		
		460	11.940	460	0.13310		
		470	13.810	470	0.15230		
		480	15.920	480	0.17380		