

P-CYMENE

CMP

CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Liquid	Colorless	Mild pleasant odor
Cymol p-Isopropyltoluene Isopropyltoluol 1-Methyl-4-isopropylbenzene Methylpropylbenzene		Floats on water.		
<p>Keep people away. Avoid contact with liquid and vapor. Call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>				
Fire	Combustible. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.			
Exposure	Call for medical aid. LIQUID Irritating to skin and eyes. 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.			
Water Pollution	Effect of low concentrations on aquatic life is unknown. Fouling to shoreline. 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
Contain
Collection Systems: Skim
Chemical and Physical Treatment: Burn;
Absorb
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 32; Aromatic Hydrocarbon
2.2 **Formula:** p-CH₃C₆H₄CH(CH₃)₂
2.3 **IMO/UN Designation:** 3.3/2046
2.4 **DOT ID No.:** 2046
2.5 **CAS Registry No.:** 99-87-6
2.6 **NAERG Guide No.:** 130
2.7 **Standard Industrial Trade Classification:** 51129

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Self-contained or air-line breathing apparatus; solvent-resistant rubber gloves; chemical splash goggles.
- 3.2 **Symptoms Following Exposure:** Inhalation causes impairment of coordination, headache. Contact with liquid causes mild irritation of eyes and skin. Ingestion causes irritation of mouth and stomach.
- 3.3 **Treatment of Exposure:** INHALATION: remove victim from contaminated area; administer artificial respiration if necessary; call physician. EYES: flush with water for 15 min.; call a physician. SKIN: wipe off liquid; wash well with soap and water. INGESTION: induce vomiting; get medical attention.
- 3.4 **TLV-TWA:** Not listed.
3.5 **TLV-STEL:** Not listed.
3.6 **TLV-Ceiling:** Not listed.
- 3.7 **Toxicity by Ingestion:** Grade 2; oral rat LD₅₀ = 4,750 mg/kg. Oral human TD₀₁₀ = 86 mg/kg (affects central nervous system)
- 3.8 **Toxicity by Inhalation:** Currently not available.
3.9 **Chronic Toxicity:** Currently not available.
- 3.10 **Vapor (Gas) Irritant Characteristics:** Vapors are nonirritating to eyes and throat.
- 3.11 **Liquid or Solid Characteristics:** Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening 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:** 140°F O.C. 117°F C.C.
4.2 **Flammable Limits in Air:** 0.7%-5.6%
4.3 **Fire Extinguishing Agents:** Foam, dry chemical, carbon dioxide
4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective.
4.5 **Special Hazards of Combustion Products:** Not pertinent
4.6 **Behavior in Fire:** Not pertinent
4.7 **Auto Ignition Temperature:** 817°F
4.8 **Electrical Hazards:** Currently not available
4.9 **Burning Rate:** 6.1 mm/min.
4.10 **Adiabatic Flame Temperature:** Currently not available
4.11 **Stoichiometric Air to Fuel Ratio:** 64.3 (calc.)
4.12 **Flame Temperature:** Currently not available
4.13 **Combustion Molar Ratio (Reactant to Product):** 17.0 (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:** No reaction
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:** Currently not available
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:** 95+%
7.2 **Storage Temperature:** Ambient
7.3 **Inert Atmosphere:** No requirement
7.4 **Venting:** Open (flame arrester)
7.5 **IMO Pollution Category:** C
7.6 **Ship Type:** 3
7.7 **Barge Hull Type:** Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Flammable liquid
8.2 **49 CFR Class:** 3
8.3 **49 CFR Package Group:** III
8.4 **Marine Pollutant:** Yes
8.5 **NFPA Hazard Classification:**
- | Category | Classification |
|---------------------------|----------------|
| Health Hazard (Blue)..... | 2 |
| Flammability (Red)..... | 2 |
| Instability (Yellow)..... | 0 |
- 8.6 **EPA Reportable Quantity:** 5000 pounds
8.7 **EPA Pollution Category:** D
8.8 **RCRA Waste Number:** U055
8.9 **EPA FWPCA List:** Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Liquid
9.2 **Molecular Weight:** 134.2
9.3 **Boiling Point at 1 atm:** 351°F = 177°C = 450°K
9.4 **Freezing Point:** -90.2°F = -67.9°C = 205.3°K
9.5 **Critical Temperature:** Not pertinent
9.6 **Critical Pressure:** Not pertinent
9.7 **Specific Gravity:** 0.857 at 20°C (liquid)
9.8 **Liquid Surface Tension:** 28.09 dynes/cm = 0.02809 N/m at 20°C
9.9 **Liquid Water Interfacial Tension:** 36.41 dynes/cm = 0.03641 N/m at 20°C
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:** 122 Btu/lb = 67.8 cal/g = 2.84 X 10⁵ J/kg
9.13 **Heat of Combustion:** -18,800 Btu/lb = -10,400 cal/g = -437 X 10⁵ 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:** 17.10 cal/g
9.18 **Limiting Value:** Currently not available
9.19 **Reid Vapor Pressure:** Low

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
35	54.430	30	0.410	51	0.853	35	1.105
40	54.290	40	0.415	52	0.853	40	1.059
45	54.150	50	0.420	53	0.853	45	1.015
50	54.010	60	0.424	54	0.853	50	0.974
55	53.880	70	0.429	55	0.853	55	0.936
60	53.740	80	0.434	56	0.853	60	0.900
65	53.600	90	0.438	57	0.853	65	0.866
70	53.460	100	0.443	58	0.853	70	0.833
75	53.320	110	0.448	59	0.853	75	0.803
80	53.180	120	0.452	60	0.853	80	0.774
85	53.040	130	0.457	61	0.853	85	0.747
90	52.900	140	0.462	62	0.853	90	0.721
95	52.770	150	0.466	63	0.853	95	0.696
100	52.630	160	0.471	64	0.853	100	0.673
		170	0.475	65	0.853	105	0.651
		180	0.480	66	0.853	110	0.630
		190	0.485	67	0.853	115	0.610
		200	0.489	68	0.853	120	0.591
				69	0.853	125	0.572
				70	0.853	130	0.555
				71	0.853	135	0.539
				72	0.853	140	0.523
				73	0.853		
				74	0.853		
				75	0.853		
				76	0.853		

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	60	0.018	60	0.00042		N
	N	70	0.025	70	0.00059		O
	S	80	0.035	80	0.00082		T
	O	90	0.049	90	0.00111		
	L	100	0.067	100	0.00150		P
	U	110	0.091	110	0.00200		E
	B	120	0.122	120	0.00264		R
	L	130	0.163	130	0.00345		T
	E	140	0.214	140	0.00447		I
		150	0.280	150	0.00574		N
		160	0.362	160	0.00731		E
		170	0.465	170	0.00923		N
		180	0.592	180	0.01157		T
		190	0.748	190	0.01440		
		200	0.939	200	0.01780		
		210	1.171	210	0.02186		
		220	1.450	220	0.02668		
		230	1.785	230	0.03236		
		240	2.184	240	0.03903		
		250	2.658	250	0.04682		
		260	3.216	260	0.05587		
		270	3.872	270	0.06633		
		280	4.637	280	0.07838		
		290	5.527	290	0.09218		
		300	6.558	300	0.10790		
		310	7.747	310	0.12580		