

DIISOPROPYLBENZENE HYDROPEROXIDE

DIH

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Isopropylcumyl hydroperoxide		Liquid	Colorless to pale yellow	Sharp, unpleasant odor
May float or sink in water.				
<p>Keep people away. Shut off ignition sources and call fire department. Avoid contact with liquid and vapor. Notify local health and pollution control agencies.</p>				
Fire	Combustible. Will increase the intensity of a fire. May cause fire on contact with combustibles. Containers may explode in fire. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.			
Exposure	CALL FOR MEDICAL AID. VAPOR 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. LIQUID Irritating to 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. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.			
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

Dilute and disperse
 Stop discharge
 Do not burn
 Clean shore line

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
 2.2 **Formula:** (CH₃)₂CHC₆H₄C(CH₃)₂OOH
 +(CH₃)₂CHC₆H₄CH(CH₃)₂
 2.3 **IMO/UN Designation:** 5.2/1875
 2.4 **DOT ID No.:** Forbidden
 2.5 **CAS Registry No.:** Currently not available
 2.6 **NAERG Guide No.:** 145
 2.7 **Standard Industrial Trade Classification:** 51129

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** solvent-resistant gloves; chemical-resistant apron; chemical goggles or face shield; self-contained breathing apparatus
- 3.2 **Symptoms Following Exposure:** Inhalation causes irritation of nose and throat. Contact with eyes or skin causes throbbing sensation and irritation.
- 3.3 **Treatment of Exposure:** INHALATION: move to fresh air; call a doctor. EYES: flush with water for 15 min., holding eyelids open; call physician. SKIN: wash several times 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:** Currently not available
 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:** 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:** 175°F C.C.
 4.2 **Flammable Limits in Air:** Currently not available
 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:** Flammable alcohol and ketone gases are formed in fire.
 4.6 **Behavior in Fire:** Burns with a flare effect. Containers may explode.
 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:** Not pertinent
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** Not pertinent
 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:** Aluminum, copper, brass, lead, zinc salts, mineral acids, oxidizing or reducing agents all can cause rapid decomposition.
 5.3 **Stability During Transport:** Unstable; slowly evolves oxygen
 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:** 54.06%, the balance being diisopropylbenzene, a combustible hydrocarbon
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** No requirement
 7.4 **Venting:** Open (flame arrester)
 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:** Forbidden
 8.2 **49 CFR Class:** Not pertinent
 8.3 **49 CFR Package Group:** Not pertinent
 8.4 **Marine Pollutant:** Yes
 8.5 **NFPA Hazard Classification:** Not listed
 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:** Liquid
 9.2 **Molecular Weight:** 194.26
 9.3 **Boiling Point at 1 atm:** Not pertinent
 9.4 **Freezing Point:** <15°F = <-9°C = <264°K
 9.5 **Critical Temperature:** Not pertinent
 9.6 **Critical Pressure:** Not pertinent
 9.7 **Specific Gravity:** 0.956 at 15°C (liquid)
 9.8 **Liquid Surface Tension:** Currently not available
 9.9 **Liquid Water Interfacial Tension:** Currently not available
 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:** Not pertinent
 9.13 **Heat of Combustion:** Currently not available
 9.14 **Heat of Decomposition:** Currently not available
 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

DIISOPROPYLBENZENE HYDROPEROXIDE

DIH

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
51	59.950		N		N		N
52	59.920		O		O		O
53	59.880		T		T		T
54	59.850						
55	59.810		P		P		P
56	59.780		E		E		E
57	59.740		R		R		R
58	59.710		T		T		T
59	59.680		I		I		I
60	59.640		N		N		N
61	59.610		E		E		E
62	59.570		N		N		N
63	59.540		T		T		T
64	59.500						
65	59.470						
66	59.430						
67	59.400						
68	59.360						
69	59.330						
70	59.290						
71	59.260						
72	59.220						
73	59.190						
74	59.160						
75	59.120						
76	59.090						

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