

CYCLOHEXANOL

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CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Oily liquid	Colorless to light yellow	Alcohol odor
Adronal Anol Cyclohexyl alcohol Hexahydrophenol Hexalin Hydroxycyclohexane		Floats and mixes slowly with water. May solidify. Freezing point is 75°F		
<p>Keep people away. Avoid contact with liquid. Shut off ignition sources and call fire department. Wear rubber overclothing (including gloves). Notify local health and pollution control agencies. Protect water intakes.</p>				
Fire	Combustible. Extinguish with water, dry chemical, foam, or carbon dioxide. Cool exposed containers with water.			
Exposure	CALL FOR MEDICAL AID. LIQUID OR 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.			
Water Pollution	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and pollution control officials. Notify operators of nearby water intakes.			

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS
Dilute and disperse Stop discharge Contain Collection Systems: Skim Salvage waterfowl	2.1 CG Compatibility Group: 20; Acohols, glycols 2.2 Formula: (CH ₂) ₆ CHOH 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 108-93-0 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51231
3. HEALTH HAZARDS	
3.1 Personal Protective Equipment: Goggles or face shield 3.2 Symptoms Following Exposure: Narcosis-depression of the central nervous system tending to produce sleep or unconsciousness. 3.3 Treatment of Exposure: Eye contact is more hazardous than inhalation, skin irritation, or ingestion. Flush eyes with water and remove victim to fresh air. 3.4 TLV-TWA: 50 ppm 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD ₅₀ = 0.5 to 5 g/kg 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary. 3.11 Liquid or Solid Characteristics: Causes smarting of the skin and first-degree burns on short exposure and may cause secondary burns on long exposure. 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: 400 ppm 3.14 OSHA PEL-TWA: 50 ppm 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:** 160°F O.C. 154°F C.C.
- 4.2 **Flammable Limits in Air:** Currently not available
- 4.3 **Fire Extinguishing Agents:** Water, foam, carbon dioxide, or dry chemical.
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
- 4.5 **Special Hazards of Combustion Products:** Not pertinent
- 4.6 **Behavior in Fire:** Not pertinent
- 4.7 **Auto Ignition Temperature:** 572°F
- 4.8 **Electrical Hazards:** Currently not available
- 4.9 **Burning Rate:** 3.9 mm/min.
- 4.10 **Adiabatic Flame Temperature:** Currently not available
- 4.11 **Stoichiometric Air to Fuel Ratio:** 40.5 (calc.)
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** 12.0 (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):** 0.08 lb/lb, 5 days
- 6.4 **Food Chain Concentration Potential:** None
- 6.5 **GESAMP Hazard Profile:**
 Bioaccumulation: 0
 Damage to living resources: 2
 Human Oral hazard: 1
 Human Contact hazard: II
 Reduction of amenities: XX

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Technical; pure
- 7.2 **Storage Temperature:** Currently not available
- 7.3 **Inert Atmosphere:** Currently not available
- 7.4 **Venting:** Currently not available
- 7.5 **IMO Pollution Category:** D
- 7.6 **Ship Type:** Data 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:**

Category	Classification
Health Hazard (Blue).....	1
Flammability (Red).....	2
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:** 100.16
- 9.3 **Boiling Point at 1 atm:** 322°F = 161°C = 434°K
- 9.4 **Freezing Point:** 74.5°F = 23.6°C = 296.8°K
- 9.5 **Critical Temperature:** 665.6°F = 352°C = 625.2°K
- 9.6 **Critical Pressure:** 540 psia = 37 atm = 3.7 MN/m²
- 9.7 **Specific Gravity:** 0.947 at 20°C (liquid)
- 9.8 **Liquid Surface Tension:** 34.2 dynes/cm = 0.0342 N/m at 16.2°C
- 9.9 **Liquid Water Interfacial Tension:** 3.9 dynes/cm = 0.0039 N/m at 25°C
- 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
- 9.11 **Ratio of Specific Heats of Vapor (Gas):** 1.071
- 9.12 **Latent Heat of Vaporization:** 196 Btu/lb = 109 cal/g = 4.56 X 10⁵ J/kg
- 9.13 **Heat of Combustion:** -16,000 Btu/lb = -8910 cal/g = -373 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:** 4.19 cal/g
- 9.18 **Limiting Value:** Currently not available
- 9.19 **Reid Vapor Pressure:** 0.1 psia

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
75	58.980	82	0.502	75	0.933	76	58.430
80	58.850	84	0.502	80	0.930	78	54.480
85	58.720	86	0.502	85	0.927	80	50.820
90	58.580	88	0.502	90	0.924	82	47.430
95	58.451	90	0.502	95	0.921	84	44.290
100	58.320	92	0.502	100	0.918	86	41.380
105	58.190	94	0.502	105	0.915	88	38.680
110	58.060	96	0.502	110	0.912	90	36.180
115	57.930	98	0.502	115	0.909	92	33.850
120	57.790	100	0.502	120	0.906	94	31.690
125	57.660	102	0.502	125	0.903	96	29.680
130	57.530	104	0.502	130	0.900	98	27.810
135	57.401	106	0.502	135	0.897	100	26.070
140	57.270	108	0.502	140	0.894	102	24.450
145	57.130	110	0.502	145	0.891	104	22.940
150	57.000	112	0.502	150	0.888	106	21.540
155	56.870	114	0.502	155	0.886	108	20.230
160	56.740	116	0.502	160	0.883	110	19.000
165	56.610	118	0.502	165	0.880	112	17.860
170	56.480	120	0.502	170	0.877	114	16.800
175	56.341	122	0.502	175	0.874	116	15.800
180	56.210	124	0.502	180	0.871	118	14.870
185	56.080	126	0.502	185	0.868	120	14.000
190	55.950	128	0.502	190	0.865	122	13.190
		130	0.502	195	0.862		
		132	0.502	200	0.859		

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
59	4.300	130	0.177	130	0.00280	0	0.255
		140	0.241	140	0.00376	25	0.271
		150	0.325	150	0.00498	50	0.286
		160	0.433	160	0.00653	75	0.302
		170	0.571	170	0.00847	100	0.317
		180	0.746	180	0.01088	125	0.332
		190	0.964	190	0.01385	150	0.346
		200	1.236	200	0.01748	175	0.361
		210	1.571	210	0.02189	200	0.375
		220	1.980	220	0.02719	225	0.390
		230	2.478	230	0.03352	250	0.404
		240	3.077	240	0.04104	275	0.418
		250	3.795	250	0.04990	300	0.432
		260	4.650	260	0.06029	325	0.445
		270	5.662	270	0.07241	350	0.459
		280	6.853	280	0.08645	375	0.472
						400	0.486
						425	0.499
						450	0.512
						475	0.524
						500	0.537
						525	0.549
						550	0.562
						575	0.574
						600	0.586