

N-DECYL ALCOHOL

DAN

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Alcohol C-10 Capric alcohol 1-Decanol Dytol S-91 Lorol-22 Nonylcarbinol	Liquid Colorless to light yellow Faint alcohol odor Floats on water. Freezing point is 44°F.
<p>Keep people away. Call fire department. Avoid contact with liquid. Notify local health and pollution control agencies.</p>	
Fire	Combustible. Extinguish with dry chemical.
Exposure	CALL FOR MEDICAL AID. LIQUID Irritating to eyes. If in eyes, hold eyelids open and flush with plenty of water.
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 pollution control officials. Notify operators of nearby water intakes.

<p>1. CORRECTIVE RESPONSE ACTIONS Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Absorb Clean shore line</p>	<p>2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 20; Alcohols, glycols 2.2 Formula: CH₃(CH₂)₉CH₂OH 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 112-30-1 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51229</p>
<p>3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Goggles or face shield. 3.2 Symptoms Following Exposure: Direct contact can produce eye irritation; low general toxicity. 3.3 Treatment of Exposure: CONTACT WITH EYES: flush with water for 15 min. 3.4 TLV-TWA: Not pertinent 3.5 TLV-STEL: Not pertinent 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 1; LD₅₀ = 5 to 15 g/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: None 3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to 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</p>	

<p>4. FIRE HAZARDS 4.1 Flash Point: 180°F O.C. 4.2 Flammable Limits in Air: Currently not available 4.3 Fire Extinguishing Agents: 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: 550°F 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: 71.4 (calc.) 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): 21.0 (calc.) 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7. SHIPPING INFORMATION 7.1 Grades of Purity: 95-99% 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open (flame arrester) 7.5 IMO Pollution Category: B 7.6 Ship Type: 3 7.7 Barge Hull Type: Currently not available</p>								
<p>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</p>	<p>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: <table border="1"> <tr> <td>Category</td> <td>Classification</td> </tr> <tr> <td>Health Hazard (Blue).....</td> <td>0</td> </tr> <tr> <td>Flammability (Red).....</td> <td>2</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table> 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</p>	Category	Classification	Health Hazard (Blue).....	0	Flammability (Red).....	2	Instability (Yellow).....	0
Category	Classification								
Health Hazard (Blue).....	0								
Flammability (Red).....	2								
Instability (Yellow).....	0								
<p>6. WATER POLLUTION 6.1 Aquatic Toxicity: Currently not available 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): 29.3%, 1 day 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 3 Human Oral hazard: 1 Human Contact hazard: 0 Reduction of amenities: X</p>	<p>9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Physical State at 15° C and 1 atm: Liquid 9.2 Molecular Weight: 158.29 9.3 Boiling Point at 1 atm: 446°F = 230°C = 503°K 9.4 Freezing Point: 44°F = 6.9°C = 280.1°K 9.5 Critical Temperature: 800.6°F = 427°C = 700.2°K 9.6 Critical Pressure: 320 psia = 22 atm = 2.2 MN/m² 9.7 Specific Gravity: 0.840 at 20°C (liquid) 9.8 Liquid Surface Tension: 28.9 dynes/cm = 0.0289 N/m at 20°C 9.9 Liquid Water Interfacial Tension: (est.) 60 dynes/cm = 0.06 N/m at 10°C 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): 1.035 9.12 Latent Heat of Vaporization: (est.) 130 Btu/lb = 74 cal/g = 3.1 X 10⁵ J/kg 9.13 Heat of Combustion: -18,000 Btu/lb = -9980 cal/g = 418 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: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Very low</p>								

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
60	52.630	85	0.549	90	1.130		C
70	52.370	90	0.559	95	1.127		U
80	52.110	95	0.569	100	1.125		R
90	51.840	100	0.579	105	1.122		R
100	51.580	105	0.590	110	1.119		E
110	51.320	110	0.600	115	1.116		N
120	51.050	115	0.610	120	1.114		T
130	50.790	120	0.620	125	1.111		L
140	50.520	125	0.630	130	1.108		Y
150	50.260	130	0.640	135	1.105		
160	50.000	135	0.650	140	1.102		N
170	49.730	140	0.660	145	1.100		O
180	49.470	145	0.671	150	1.097		T
190	49.210	150	0.681	155	1.094		
200	48.940			160	1.091		A
210	48.680			165	1.089		V
				170	1.086		A
				175	1.083		I
				180	1.080		L
				185	1.077		A
				190	1.075		B
				195	1.072		L
				200	1.069		L
				205	1.066		E

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	80	0.000	80	0.00000	0	0.332
	N	100	0.001	100	0.00001	20	0.343
	S	120	0.002	120	0.00004	40	0.354
	O	140	0.005	140	0.00012	60	0.365
	L	160	0.013	160	0.00030	80	0.375
	U	180	0.029	180	0.00067	100	0.386
	B	200	0.062	200	0.00138	120	0.396
	L	220	0.123	220	0.00266	140	0.406
	E	240	0.228	240	0.00481	160	0.417
		260	0.403	260	0.00826	180	0.427
		280	0.679	280	0.01353	200	0.436
		300	1.096	300	0.02127	220	0.446
		320	1.706	320	0.03227	240	0.456
		340	2.571	340	0.04740	260	0.465
		360	3.762	360	0.06768	280	0.474
		380	5.363	380	0.09418	300	0.484
		400	7.467	400	0.12810	320	0.493
		420	10.180	420	0.17060	340	0.502
		440	13.610	440	0.22300	360	0.510
		460	17.880	460	0.28660	380	0.519
		480	23.110	480	0.36270	400	0.528
						420	0.536
						440	0.544