

# 1-TETRADECENE

TTD

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION								
Common Synonyms Dodecylethylene	Watery liquid Floats on water.	Colorless	Mild pleasant odor	<p>4.1 Flash Point: 230°F C.C.</p> <p>4.2 Flammable Limits in Air: Currently not available</p> <p>4.3 Fire Extinguishing Agents: Dry chemical, foam, or carbon dioxide</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.</p> <p>4.5 Special Hazards of Combustion Products: Not pertinent</p> <p>4.6 Behavior in Fire: Not pertinent</p> <p>4.7 Auto Ignition Temperature: 455°F</p> <p>4.8 Electrical Hazards: Not pertinent</p> <p>4.9 Burning Rate: Currently not available</p> <p>4.10 Adiabatic Flame Temperature: Currently not available</p> <p>4.11 Stoichiometric Air to Fuel Ratio: 100.0 (calc.)</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): 28.0 (calc.)</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7.1 Grades of Purity: Technical: 96-99.6%</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: No requirement</p> <p>7.4 Venting: Open (flame arrester)</p> <p>7.5 IMO Pollution Category: Currently not available</p> <p>7.6 Ship Type: Currently not available</p> <p>7.7 Barge Hull Type: Currently not available</p>								
Fire	Combustible. Extinguish with dry chemical, foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.				8. HAZARD CLASSIFICATIONS								
Exposure	CALL FOR MEDICAL AID.  LIQUID Irritating to eyes. IF IN EYES, hold eyelids open and flush with plenty of water.				<p>8.1 49 CFR Category: Not listed</p> <p>8.2 49 CFR Class: Not pertinent</p> <p>8.3 49 CFR Package Group: Not listed</p> <p>8.4 Marine Pollutant: No</p> <p>8.5 NFPA Hazard Classification:</p> <table> <tr> <td>Category</td> <td>Classification</td> </tr> <tr> <td>Hazard Hazard (Blue).....</td> <td>0</td> </tr> <tr> <td>Flammability (Red).....</td> <td>1</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table>	Category	Classification	Hazard Hazard (Blue).....	0	Flammability (Red).....	1	Instability (Yellow).....	0
Category	Classification												
Hazard Hazard (Blue).....	0												
Flammability (Red).....	1												
Instability (Yellow).....	0												
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.				<p>8.6 EPA Reportable Quantity: Not listed.</p> <p>8.7 EPA Pollution Category: Not listed.</p> <p>8.8 RCRA Waste Number: Not listed</p> <p>8.9 EPA FWPCA List: Not listed</p>								
1. CORRECTIVE RESPONSE ACTIONS Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Absorb Clean shore line Salvage waterfowl	2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 30; Olefin 2.2 Formula: $\text{CH}_3(\text{CH}_2)_8\text{CH}=\text{CH}_2$ 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51119	3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Goggles or face shield. 3.2 Symptoms Following Exposure: Liquid may irritate eyes. 3.3 Treatment of Exposure: EYES: flush with water for 15 min. 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: Non-volatile 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. 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	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	9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Physical State at 15°C and 1 atm: Liquid 9.2 Molecular Weight: 196.38 9.3 Boiling Point at 1 atm: 484.0°F = 251.1°C = 524.3°K 9.4 Freezing Point: 8.8°F = -12.9°C = 260.3°K 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 0.771 at 20°C (liquid) 9.8 Liquid Surface Tension: 25.0 dynes/cm = 0.025 N/m at 20°C 9.9 Liquid Water Interfacial Tension: 32.8 dynes/cm = 0.0328 N/m at 22.7°C 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): 1.027 9.12 Latent Heat of Vaporization: 103 Btu/lb = 57.1 cal/g = 2.39 X 10 <sup>5</sup> J/kg 9.13 Heat of Combustion: -17,600 Btu/lb = -9,779 cal/g = -409.4 X 10 <sup>5</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: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available								
			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	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	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	48.980	35	0.453	42	1.040	34	3.151
40	48.840	40	0.453	44	1.040	36	3.064
45	48.700	45	0.453	46	1.040	38	2.981
50	48.570	50	0.453	48	1.040	40	2.900
55	48.430	55	0.453	50	1.040	42	2.822
60	48.290	60	0.453	52	1.040	44	2.746
65	48.150	65	0.453	54	1.040	46	2.674
70	48.010	70	0.453	56	1.040	48	2.603
75	47.870	75	0.453	58	1.040	50	2.535
80	47.730	80	0.453	60	1.040	52	2.470
85	47.590	85	0.453	62	1.040	54	2.406
90	47.460	90	0.453	64	1.040	56	2.345
95	47.320	95	0.453	66	1.040	58	2.286
100	47.180	100	0.453	68	1.040	60	2.228
105	47.040	105	0.453	70	1.040	62	2.173
110	46.900	110	0.453	72	1.040	64	2.119
115	46.760	115	0.453	74	1.040	66	2.067
120	46.620	120	0.453	76	1.040	68	2.017
125	46.480					70	1.968
130	46.350					72	1.921
135	46.210					74	1.875
140	46.070					76	1.831
145	45.930					78	1.788
150	45.790					80	1.746
155	45.650					82	1.706
160	45.510					84	1.666

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		220	0.088	220	0.00236	0	0.338
N		230	0.118	230	0.00312	25	0.353
S		240	0.156	240	0.00407	50	0.368
O		250	0.204	250	0.00526	75	0.383
L		260	0.265	260	0.00673	100	0.397
U		270	0.340	270	0.00853	125	0.412
B		280	0.433	280	0.01071	150	0.426
L		290	0.547	290	0.01334	175	0.440
E		300	0.684	300	0.01648	200	0.453
		310	0.850	310	0.02020	225	0.467
		320	1.047	320	0.02458	250	0.480
		330	1.282	330	0.02970	275	0.493
		340	1.559	340	0.03566	300	0.506
		350	1.884	350	0.04256	325	0.519
		360	2.262	360	0.05049	350	0.532
		370	2.701	370	0.05956	375	0.544
		380	3.207	380	0.06988	400	0.557
		390	3.789	390	0.08158	425	0.569
		400	4.453	400	0.09477	450	0.581
		410	5.209	410	0.10960	475	0.593
		420	6.066	420	0.12620	500	0.604
		430	7.033	430	0.14460	525	0.616
		440	8.119	440	0.16510	550	0.627
		450	9.336	450	0.18780	575	0.638
		460	10.690	460	0.21270	600	0.649
		470	12.200	470	0.24020		