

HEPTANOL

HTN

CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Watery liquid	Colorless	Weak alcohol odor
Enanthic alcohol 1-Heptanol Heptyl alcohol 1-Hydroxyheptane		Floats on water.		
Shut off ignition sources and call fire department. Notify local health and pollution control agencies.				
Fire	Combustible. Extinguish with dry chemical, foam, or carbon dioxide. Cool exposed containers with water.			
Exposure	Not harmful.			
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:
Absorb
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
2.2 **Formula:** C₇H₁₆OH
2.3 **IMO/UN Designation:** Not listed
2.4 **DOT ID No.:** Not listed
2.5 **CAS Registry No.:** 111-70-6
2.6 **NAERG Guide No.:** Not listed
2.7 **Standard Industrial Trade Classification:** 51219

3. HEALTH HAZARDS

3.1 **Personal Protective Equipment:** Chemical goggles or face shield.
3.2 **Symptoms Following Exposure:** Low toxicity; liquid may irritate eyes.
3.3 **Treatment of Exposure:** Flush all affected parts with plenty of water.
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 = 1.87 g/kg
3.8 **Toxicity by Inhalation:** Currently not available.
3.9 **Chronic Toxicity:** Currently not available.
3.10 **Vapor (Gas) Irritant Characteristics:** Nonirritating
3.11 **Liquid or Solid Characteristics:** Liquid may irritate eyes; it is not irritating to skin.
3.12 **Odor Threshold:** 0.49 ppm.
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:** 170°F O.C.
4.2 **Flammable Limits in Air:** Currently not available
4.3 **Fire Extinguishing Agents:** 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:** Currently not available
4.8 **Electrical Hazards:** Not pertinent
4.9 **Burning Rate:** 3.2 mm/min.
4.10 **Adiabatic Flame Temperature:** Currently not available
4.11 **Stoichiometric Air to Fuel Ratio:** 50.0 (calc.)
4.12 **Flame Temperature:** Currently not available
4.13 **Combustion Molar Ratio (Reactant to Product):** 15.0 (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):** 20.4% (theor.), 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: 1
Reduction of amenities: 0

7. SHIPPING INFORMATION

7.1 **Grades of Purity:** Currently not available
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:** 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:** 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:** 116.20
9.3 **Boiling Point at 1 atm:** 349°F = 176°C = 449°K
9.4 **Freezing Point:** -29°F = -34°C = 239°K
9.5 **Critical Temperature:** 680.0°F = 360°C = 633.2°K
9.6 **Critical Pressure:** 440 psia = 30 atm = 3.0 MN/m²
9.7 **Specific Gravity:** 0.822 at 20°C (liquid)
9.8 **Liquid Surface Tension:** 26.2 dynes/cm = 0.0262 N/mm at 15°C
9.9 **Liquid Water Interfacial Tension:** 7.7 dynes/cm = 0.0077 N/m at 25°C
9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
9.11 **Ratio of Specific Heats of Vapor (Gas):** 1.049
9.12 **Latent Heat of Vaporization:** 189 Btu/lb = 105 cal/g = 4.40 X 10⁵ J/kg
9.13 **Heat of Combustion:** -15,810 Btu/lb = -8784 cal/g = -367.8 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:** Currently not available

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
40	52.140	0	0.418	30	1.064	55	9.131
50	51.850	10	0.429	40	1.057	60	8.244
60	51.560	20	0.441	50	1.051	65	7.458
70	51.270	30	0.453	60	1.044	70	6.759
80	50.970	40	0.464	70	1.038	75	6.137
90	50.680	50	0.476	80	1.031	80	5.583
100	50.390	60	0.488	90	1.025	85	5.087
110	50.100	70	0.499	100	1.018	90	4.643
120	49.810	80	0.511	110	1.011	95	4.245
130	49.520	90	0.523	120	1.005	100	3.887
140	49.230	100	0.534	130	0.998	105	3.565
150	48.940	110	0.546	140	0.992	110	3.275
160	48.640	120	0.558	150	0.985	115	3.012
170	48.350	130	0.569	160	0.979	120	2.775
180	48.060	140	0.581	170	0.972	125	2.560
190	47.770	150	0.593	180	0.966	130	2.365
200	47.480	160	0.604	190	0.959	135	2.188
210	47.190	170	0.616	200	0.952	140	2.026
		180	0.628				
		190	0.639				
		200	0.651				
		210	0.663				
		220	0.674				
		230	0.686				
		240	0.698				

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
34	0.095	110	0.031	110	0.00060	0	0.326
36	0.096	120	0.045	120	0.00084	25	0.339
38	0.096	130	0.064	130	0.00117	50	0.353
40	0.096	140	0.089	140	0.00161	75	0.366
42	0.096	150	0.123	150	0.00219	100	0.380
44	0.097	160	0.169	160	0.00295	125	0.393
46	0.097	170	0.229	170	0.00394	150	0.406
48	0.097	180	0.308	180	0.00521	175	0.419
50	0.097	190	0.409	190	0.00682	200	0.431
52	0.098	200	0.540	200	0.00886	225	0.444
54	0.098	210	0.706	210	0.01142	250	0.456
56	0.098	220	0.917	220	0.01460	275	0.469
58	0.098	230	1.181	230	0.01854	300	0.481
60	0.099	240	1.510	240	0.02337	325	0.493
62	0.099	250	1.918	250	0.02926	350	0.505
64	0.099	260	2.420	260	0.03640	375	0.516
66	0.100	270	3.033	270	0.04500	400	0.528
68	0.100	280	3.779	280	0.05531	425	0.540
70	0.100	290	4.681	290	0.06760	450	0.551
72	0.100	300	5.766	300	0.08216	475	0.562
74	0.101	310	7.063	310	0.09934	500	0.573
76	0.101	320	8.608	320	0.11950	525	0.584
78	0.101	330	10.440	330	0.14310	550	0.595
80	0.101					575	0.606
82	0.102					600	0.616
84	0.102						