

# PETROLEUM NAPHTHA

PTN

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Petroleum solvent		Liquid	Colorless	Gasoline odor
Floats on water. Flammable vapor is produced.				
<p>Keep people away. Shut off ignition sources and call fire department. Stay upwind and use water spray to "knock down" vapor. Avoid contact with liquid. Notify local health and pollution control agencies. Protect water intakes.</p>				
<b>Fire</b>	<p>FLAMMABLE. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Extinguish with foam, dry chemical, or carbon dioxide. Cool exposed containers with water.</p>			
<b>Exposure</b>	<p>CALL FOR MEDICAL AID.</p> <p>VAPOR Not irritating to eyes, nose, or throat.</p> <p>LIQUID Harmful if swallowed. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. DO NOT INDUCE VOMITING.</p>			
<b>Water Pollution</b>	<p>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>			

<p><b>1. CORRECTIVE RESPONSE ACTIONS</b></p> <p>Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Burn; Absorb Clean shore line Salvage waterfowl</p>	<p><b>2. CHEMICAL DESIGNATIONS</b></p> <p>2.1 <b>CG Compatibility Group:</b> 33; Miscellaneous Hydrocarbon Mixtures 2.2 <b>Formula:</b> Not applicable 2.3 <b>IMO/UN Designation:</b> 3.2/1255 2.4 <b>DOT ID No.:</b> 1268 2.5 <b>CAS Registry No.:</b> 8030-30-6 2.6 <b>NAERG Guide No.:</b> 128 2.7 <b>Standard Industrial Trade Classification:</b> 33429</p>
<p><b>3. HEALTH HAZARDS</b></p> <p>3.1 <b>Personal Protective Equipment:</b> Goggles or face shield (as for gasoline). 3.2 <b>Symptoms Following Exposure:</b> Inhalation of concentrated vapor may cause intoxication. Liquid is not very irritating to skin or eyes but may get into lungs by aspiration. 3.3 <b>Treatment of Exposure:</b> INHALATION: remove victim to fresh air and treat symptoms. INGESTION: have victim drink water or milk; do NOT induce vomiting. EYES: flush with water for 15 min. SKIN: wipe off and wash with soap and water. 3.4 <b>TLV-TWA:</b> 400 ppm 3.5 <b>TLV-STEL:</b> Not listed. 3.6 <b>TLV-Ceiling:</b> Not listed. 3.7 <b>Toxicity by Ingestion:</b> Grade 2; LD<sub>50</sub> = 0.5 to 5 g/kg 3.8 <b>Toxicity by Inhalation:</b> Currently not available. 3.9 <b>Chronic Toxicity:</b> None 3.10 <b>Vapor (Gas) Irritant Characteristics:</b> Vapors are non-irritating to the eyes and throat. 3.11 <b>Liquid or Solid Characteristics:</b> No appreciable hazard. Practically harmless to the skin. 3.12 <b>Odor Threshold:</b> Currently not available 3.13 <b>IDLH Value:</b> 1,000 ppm 3.14 <b>OSHA PEL-TWA:</b> 100 ppm 3.15 <b>OSHA PEL-STEL:</b> Not listed. 3.16 <b>OSHA PEL-Ceiling:</b> Not listed. 3.17 <b>EPA AEGL:</b> Not listed</p>	

<p><b>4. FIRE HAZARDS</b></p> <p>4.1 <b>Flash Point:</b> 20°F (approx.) C.C. 4.2 <b>Flammable Limits in Air:</b> 0.9%-6.0% 4.3 <b>Fire Extinguishing Agents:</b> Foam, carbon dioxide, or dry chemical 4.4 <b>Fire Extinguishing Agents Not to Be Used:</b> Water may be ineffective. 4.5 <b>Special Hazards of Combustion Products:</b> Not pertinent 4.6 <b>Behavior in Fire:</b> Not pertinent 4.7 <b>Auto Ignition Temperature:</b> 450°F (approx.) 4.8 <b>Electrical Hazards:</b> Not pertinent 4.9 <b>Burning Rate:</b> 4 mm/min. 4.10 <b>Adiabatic Flame Temperature:</b> Currently not available 4.11 <b>Stoichiometric Air to Fuel Ratio:</b> Not pertinent. 4.12 <b>Flame Temperature:</b> Currently not available 4.13 <b>Combustion Molar Ratio (Reactant to Product):</b> Not pertinent. 4.14 <b>Minimum Oxygen Concentration for Combustion (MOCC):</b> Not listed</p>	<p><b>7. SHIPPING INFORMATION</b></p> <p>7.1 <b>Grades of Purity:</b> Currently not available 7.2 <b>Storage Temperature:</b> Ambient 7.3 <b>Inert Atmosphere:</b> No requirement 7.4 <b>Venting:</b> Open (flame arrester) or pressure-vacuum 7.5 <b>IMO Pollution Category:</b> Currently not available 7.6 <b>Ship Type:</b> Currently not available 7.7 <b>Barge Hull Type:</b> Currently not available</p>								
<p><b>5. CHEMICAL REACTIVITY</b></p> <p>5.1 <b>Reactivity with Water:</b> No reaction 5.2 <b>Reactivity with Common Materials:</b> No reaction 5.3 <b>Stability During Transport:</b> Stable 5.4 <b>Neutralizing Agents for Acids and Caustics:</b> Not pertinent 5.5 <b>Polymerization:</b> Not pertinent 5.6 <b>Inhibitor of Polymerization:</b> Not pertinent</p>	<p><b>8. HAZARD CLASSIFICATIONS</b></p> <p>8.1 <b>49 CFR Category:</b> Flammable liquid 8.2 <b>49 CFR Class:</b> 3 8.3 <b>49 CFR Package Group:</b> II 8.4 <b>Marine Pollutant:</b> No 8.5 <b>NFPA Hazard Classification:</b></p> <table border="1"> <tr> <th>Category</th> <th>Classification</th> </tr> <tr> <td>Health Hazard (Blue).....</td> <td>1</td> </tr> <tr> <td>Flammability (Red).....</td> <td>4</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table> <p>8.6 <b>EPA Reportable Quantity:</b> Not listed. 8.7 <b>EPA Pollution Category:</b> Not listed. 8.8 <b>RCRA Waste Number:</b> Not listed 8.9 <b>EPA FWPCA List:</b> Not listed</p>	Category	Classification	Health Hazard (Blue).....	1	Flammability (Red).....	4	Instability (Yellow).....	0
Category	Classification								
Health Hazard (Blue).....	1								
Flammability (Red).....	4								
Instability (Yellow).....	0								
<p><b>6. WATER POLLUTION</b></p> <p>6.1 <b>Aquatic Toxicity:</b> Currently not available 6.2 <b>Waterfowl Toxicity:</b> Currently not available 6.3 <b>Biological Oxygen Demand (BOD):</b> Currently not available 6.4 <b>Food Chain Concentration Potential:</b> None 6.5 <b>GESAMP Hazard Profile:</b> Not listed</p>	<p><b>9. PHYSICAL &amp; CHEMICAL PROPERTIES</b></p> <p>9.1 <b>Physical State at 15° C and 1 atm:</b> Liquid 9.2 <b>Molecular Weight:</b> Not pertinent 9.3 <b>Boiling Point at 1 atm:</b> 207.0°F = 97.2°C = 370.4°K 9.4 <b>Freezing Point:</b> Not pertinent 9.5 <b>Critical Temperature:</b> Not pertinent 9.6 <b>Critical Pressure:</b> Not pertinent 9.7 <b>Specific Gravity:</b> 0.74 at 20°C (liquid) 9.8 <b>Liquid Surface Tension:</b> 19–23 dynes/cm = 0.019–0.023 N/m at 20°C 9.9 <b>Liquid Water Interfacial Tension:</b> 39–51 dynes/cm = 0.039–0.051 N/m at 20°C 9.10 <b>Vapor (Gas) Specific Gravity:</b> Not pertinent 9.11 <b>Ratio of Specific Heats of Vapor (Gas):</b> (est.) 1.030 9.12 <b>Latent Heat of Vaporization:</b> 130–150 Btu/lb = 71–81 cal/g = 3.0–3.4 X 10<sup>5</sup> J/kg 9.13 <b>Heat of Combustion:</b> Currently not available 9.14 <b>Heat of Decomposition:</b> Not pertinent 9.15 <b>Heat of Solution:</b> Not pertinent 9.16 <b>Heat of Polymerization:</b> Not pertinent 9.17 <b>Heat of Fusion:</b> Currently not available 9.18 <b>Limiting Value:</b> Currently not available 9.19 <b>Reid Vapor Pressure:</b> Currently not available</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
52	46.750	10	0.456	50	1.040	50	9.343
54	46.680	15	0.459	52	1.040	52	8.841
56	46.610	20	0.461	54	1.040	54	8.370
58	46.540	25	0.464	56	1.040	56	7.927
60	46.470	30	0.467	58	1.040	58	7.511
62	46.400	35	0.469	60	1.040	60	7.119
64	46.330	40	0.472	62	1.040	62	6.751
66	46.260	45	0.474	64	1.040	64	6.404
68	46.190	50	0.477	66	1.040	66	6.078
70	46.120	55	0.480	68	1.040	68	5.770
72	46.050	60	0.482	70	1.040	70	5.481
74	45.980	65	0.485	72	1.040	72	5.207
76	45.920	70	0.488	74	1.040	74	4.950
78	45.850	75	0.490	76	1.040	76	4.707
80	45.780	80	0.493	78	1.040	78	4.477
82	45.710	85	0.495	80	1.040	80	4.260
84	45.640	90	0.498	82	1.040	82	4.056
86	45.570	95	0.501	84	1.040	84	3.862
		100	0.503	86	1.040	86	3.679
		105	0.506	88	1.040	88	3.506
				90	1.040	90	3.342
				92	1.040	92	3.187
				94	1.040	94	3.040
				96	1.040	96	2.901
				98	1.040	98	2.770
				100	1.040	100	2.645

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	90	0.094		N		N
	N	100	0.124		O		O
	S	110	0.163		T		T
	O	120	0.211				
	L	130	0.272		P		P
	U	140	0.347		E		E
	B	150	0.440		R		R
	L	160	0.553		T		T
	E	170	0.691		I		I
		180	0.856		N		N
		190	1.054		E		E
		200	1.290		N		N
		210	1.569		T		T
		220	1.897				
		230	2.281				
		240	2.728				
		250	3.247				
		260	3.846				
		270	4.535				
		280	5.323				
		290	6.221				
		300	7.241				
		310	8.394				
		320	9.695				
		330	11.160				
		340	12.790				