## NAPHTHA: SOLVENT

CAUTIONARY RESPONSE INFORMATION         Demonstrand       Mater (add Counter)         Demonstrand       Mater (add Counter)         Demonstrand       Demonstrand         Demonstrand       Demonstr		0.000							
Uptimized any set of the set of			i			4.1 Flash Point:			
Margin propin mary, Shur of lighting how provides Shur of lighting how provides Net Net how provides Net of lighting how provides Net Net	Light naphtha	nyms			Gasoline-like odol	4.2 Flammable Limits in Air: 0.8%-5.0% 4.3 Fire Extinguishing Agents: Foam,			
Fire         Consustitie Example with the and, by chemical or carbon dioxide. Cool exposed containers with water.         4.8 Electrical Hazards: Class 1, Group D           EXposure         CALL FOR MEDICAL ALD. VAPOR Net inflaining to gave, nose or threat. If inflaide, with carbon diverses or threat. If inflaide and under diverses or threat. If its treating is allowed or was inflaid respiration. If its treating is allowed or was inflaid respiration. If its treating is allowed or was inflaid in which deny of water. If its treating is allowed or was inflaided with deny of water. If its treating is allowed or was inflaid in which deny of water. If its treating is allowed or was inflaided with deny of water. If its treating is allowed or was inflaided on the water inflaids. Notify operations of nearby water intakes. Notify operations of enarby water intakes. Notify operations of enarby water intakes. Notify operations of enarby water intakes. Notify operations of nearby water intakes. So carbon diverses or nearby water intakes. Notify operations of nearby water intakes. So carbon diverses or nearby water int	Avoid inhal Shut off igr Avoid conta Notify local	lation. hition sources a act with liquid a I health and po	and call fire departme	ent.		<ul> <li>4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent</li> <li>4.5 Special Hazards of Combustion Products: Not pertinent</li> <li>4.6 Behavior in Fire: Not pertinent</li> </ul>			
Exposure       CALL FOR MEDICAL AID. VAPOR Not inflating to eyes, nose or throat. If inhaled, will cause dizhess or loss of consciousness. Move to tresh air. If breating is a signed, give artificial respiration. If breating is a signed, give artificial respiration. If breating is a signed, give artificial respiration. If inhaled, will cause dizhess or loss of consciousness. Move to tresh air. If inhaled, will cause dizhess or possible and yeas. Hermful i swallowed.       4.11 Stockhometric Air or brue Ratio: Not. Product): Not peritinent.         LUOUD       Initiating to skin and eyes. Hermful i swallowed.       5. CHEMICAL REACTIVITY         Is SWALDOWD and years in 2000 KOT INAUCE YOMITING.       5. CHEMICAL REACTIVITY         Do NOT INDUCE YOMITING.       2. CHEMICAL DESIGNATIONS Sup discharge Contain       2. CHEMICAL DESIGNATIONS 2.1 G Compatibility Group: 33. Microarcharge and hybrid treatment: Burn Contrain and wide interias water intakes. Notify operators of nearby water intakes. Notify operators of nearby water intakes.       2.1 CHEMICAL DESIGNATIONS 2.1 G Compatibility Group: 33. Microarcharge and hybrid treatment: Burn Contrain and hybrid treatment and widthe for gasoline). 3.1 MCANE give provide and the stock on the shall (as for gasoline). 3.2 Symptome Following Exposure: HALATHALATHOS 3.1 Treatment of Exposure: HALATHALATHOS 3.1 Treatment of Exposure: HALATHALATHOS 3.1 Treatment of Exposure: HALATHALATHOS 3.1 Treatment of Exposure: INALATHOS 3.1 Treatment of Exposure: INALATHOS, thenove the shall (as	Fire	Extinguish w				<ul><li>4.8 Electrical Hazards: Class I, Group D</li><li>4.9 Burning Rate: 4 mm/min.</li></ul>			
Initialing to skin and eyes.         Harmul if valuabled.         Remove contaminated clothing and shoes.         FLsh Affected areas with plenty of water.         IF SWALLOWED and victims is CONSCIOUS, have victim drink water or Bill.         OO NOT INDUCE VOMITING.         Water Pollution         Matter Pollution         Matter Pollution         Matter Pollution         Concentrations on aquatic life is unknown.         Fourging to shoreline.         Notify coll shoreline.         Stop discharge Contain         Collection Systems: Skim Collection Systems: Skim Collection Systems: Skim Collection Systems: Skim Collection Systems: Skim Collection Systems: Skim Collection Systems: Skim Collective Equipment: Goggies or face shield (as for gasoline).         21 MORUN Designation: 3.2/1256 21 MORUN Designation: 3.2/1256 23 Matef Gould Not: 128 21 MORUN Designation: 3.2/1256 23 Streatment of LAILATION: remove to lensh art integes symptoms. INGESTION: do NOT indexing: 31 Morun Exposure: High concentration of vapos may cause intocation. If liquid is swalowed. It may get into large spatient. SUMX: wipe	Exposure	CALL FOR MEDICAL AID. VAPOR Not irritating to eyes, nose or throat. If inhaled, will cause dizziness or loss of consciousness. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.				not available 4.11 Stoichometric Air to Fuel Ratio: Not pertinent. 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent. 4.14 Minimum Oxygen Concentration for			
Pollution       Poling to shoreline. May be dargerous if tenters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.       93-Polyinetization: Not perfinent 5.6 Inhibitor of Polymerization: Not perfinent 2.1 CG Compatibility Group: 33; Miscellaneous Hydrocarbon Mixtures 2.2 Formula: Currently not available 2.3 IMOUN Designation: 3.2/1266 2.5 CAS Registry No: Currently not available 2.5 CAS Registry No: Currently not available 2.5 ARER Guide No: 128 2.7 Standard Industrial Trade Classification: 33429 3.1 Personal Protective Equipment: Gogles or face shield (as for gasoline). 3.2 Symptoms Following Exposure: Hipk concentration of Vapors may cause intoxication. If liquid is swallowed, it may get into lungs by aspiration; not very irritating to skin or eyes. 3.3 Treatment of Exposure: Pidy concentration of vapors may cause intoxication. St(N: wipe off, wash with scap and water. 3.7 Toxicity by Ingestion: Grade 2; LDa = 0.5 to 5 g/g 3.8 Toxicity by Ingestion: Grade 2; LDa = 0.5 to 5 g/g 3.16 OSHA PEL-TWA: 100 ppm 3.16 OSHA PEL-TWA: 100 ppm 3.16 OSHA PEL-TWA: 100 ppm       Ispilled on clothing and allowed to remain, may cause smarting and redening of skin.         3.10 Oshar PEL-Stell: Not Isted.       3.10 Export Not Isted.       3.10 Sent PEL-Stell: Not Isted.         3.16 OSHA PEL-TWA: 1		Irritating to s Harmful if sv Remove cor Flush affect IF IN EYES, IF SWALLO or milk. DO NOT INE	vallowed. ttarninated clothing a ed areas with plenty hold eyelids open ar WED and victim is C DUCE VOMITING.	of water. nd flush with plenty of water. ONSCIOUS, have victim drink v	vater	5.1 Reactivity with Water: No reaction 5.2 Reactivity with Common Materials: N reaction 5.3 Stability During Transport: Stable 5.4 Neutralizing Agents for Acids and	)		
Notify operators of nearby water intakes.       6. WATER POLLUTION         1. CORRECTIVE RESPONSE ACTIONS Stop discharge Contain Chemical and Physical Treatment: Burn Clean shore line Salvage waterfowl       2. CHEMICAL DESIGNATIONS       6.2 Waterfowl Toxicity: Currently not available         2.1 GG Compatibility Group: 33: Miscellaneous Hydrocarbon Mixtures Salvage waterfowl       2.1 GG Compatibility Group: 33: Miscellaneous Hydrocarbon Mixtures       6.4 Water POLLUTION         2.2 Formula: Currently not available Clean shore line Salvage waterfowl       2.1 GG Compatibility Group: 33: Miscellaneous Hydrocarbon Mixtures       6.4 Food Chain Concentration Potential: None         3.1 Personal Protective Equipment: Goggles or face shield (as for gasoline).       3.4 EALTH HAZARDS       6.5 GESAMP Hazard Profile: Not listed         3.1 Personal Protective Equipment: Goggles or face shield (as for gasoline).       3.3 GUI exposure: High concentration of vapors may cause intoxication. If liquid is swallowed, it may get into lungs by aspiration; not very inflating to skin or eyes.       6.5 GESAMP Hazard Profile: Not listed         3.3 Totative Hy Instend.       3.1 Tuv-TWW at valiable.       9.5 ToXicity by Instend.       1.6 Water Gould in the state of the st		Fouling to sl May be dan	horeline. gerous if it enters wa	ter intakes.			ent		
3. HEALTH HAZARDS     3.1 Personal Protective Equipment: Goggles or face shield (as for gasoline).     3.2 Symptoms Following Exposure: High concentration of vapors may cause intoxication. If liquid is     swallowed, it may get into lungs by aspiration; not very irritating to skin or eyes.     3.3 Treatment of Exposure: INHALATION: remove to fresh air, treat symptoms. INGESTION: do NOT     induce vorniting; call a doctor. EYES: flush with water for 15 min. SKIN: wipe off, wash with soap     and water.     3.4 TLV-TWA: 400 ppm     3.5 TLV-TWA: 400 ppm     3.5 TLV-TWA: 400 ppm     3.6 TLV-Ceiling: Not listed.     3.7 Toxicity by Inglastion: Currently not available.     3.9 Chronic Toxicity: None     3.10 Vapor (Gas) Irritant Characteristics: Vapors are nonirritating to eyes and throat.     3.11 Liquid or Solid Characteristics: Vapors are nonirritating to eyes and throat.     3.13 IDLH Value: 1,000 ppm     3.14 OSHA PEL-TWA: 100 ppm     3.14 OSHA PEL-TWA: 100 ppm     3.16 OSHA PEL-TWA: 100 ppm	Stop discha Contain Collection S Chemical a Clean shor	arge Systems: Skin and Physical Tr re line	n	<ul> <li>2.1 CG Compatibility Gro Miscellaneous Hyc</li> <li>2.2 Formula: Currently no</li> <li>2.3 IMO/UN Designation:</li> <li>2.4 DOT ID No.: 1268</li> <li>2.5 CAS Registry No.: Cu</li> <li>2.6 NAERG Guide No.: 12</li> <li>2.7 Standard Industrial T</li> </ul>	up: 33; irocarbon Mixtures t available 3.2/1256 rrrently not available 28	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			
	<ol> <li>Symptoms Fol swallowed,</li> <li>Treatment of E induce vor and water.</li> <li>TLV-TWA: 400</li> <li>TLV-STEL: Not 3.6 TLV-Ceiling: N</li> <li>Toxicity by Ing 3.8 Toxicity by Ing 3.9 Chronic Toxici</li> <li>1.0 Vapor (Gas) Ir ause sma</li> <li>2.12 Odor Threadu or Solic cause sma</li> <li>2.12 Odor Threadu or Solic ause sma</li> <li>3.13 IDLH Vasho.</li> <li>SHA PEL-TS</li> <li>3.16 OSHA PEL-Ce</li> </ol>	lowing Expose it may get into Exposure: INH- hiting; call a do ppm t listed. ot listed. ot listed. ot listed. ot listed. currents ity: None ritant Charact d Characterist urting and redde Id: Currently n 0,000 ppm VA: 100 ppm FL: Not listed. illing: Not liste	ure: High concentrat lungs by aspiration; ALATION: remove to ctor. EYES: flush with 2; LD <sub>50</sub> = 0.5 to 5 g ntty not available. teristics: Vapors are tics: Minimum hazard ning of skin. ot available	ion of vapors may cause intoxi not very irritating to skin or eye fresh air, treat symptoms. INV th water for 15 min. SKIN: wip /kg nonirritating to eyes and throat	is. SESTION: do NOT e off, wash with soap		N		

vacuum
7.5 IMO Pollution Category: Currently not available
7.6 Ship Type: Currently not available
7.7 Barge Hull Type: Currently not available
8. HAZARD CLASSIFICATIONS
8.1 49 CFR Category: Flammable liquid
8.2 49 CFR Class: 3
8.3 49 CFR Package Group:
8.4 Marine Pollutant: Yes
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
<ul><li>8.9 EPA FWPCA List: Not listed</li><li>9. PHYSICAL &amp; CHEMICAL PROPERTIES</li></ul>
9. PHYSICAL & CHEMICAL PROPERTIES
<ol> <li>PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>Physical State at 15° C and 1 atm: Liquid</li> <li>Molecular Weight: Not pertinent</li> <li>Boiling Point at 1 atm: 266–311°F =</li> </ol>
<ul> <li>9. PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>9.1 Physical State at 15° C and 1 atm: Liquid</li> <li>9.2 Molecular Weight: Not pertinent</li> <li>9.3 Boiling Point at 1 atm: 266–311°F = 130–155°C = 403–428°K</li> </ul>
<ol> <li>PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>Physical State at 15° C and 1 atm: Liquid</li> <li>Molecular Weight: Not pertinent</li> <li>Boiling Point at 1 atm: 266–311°F = 130–155°C = 403–428°K</li> <li>Freezing Point: Not pertinent</li> </ol>
<ul> <li>9. PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>9.1 Physical State at 15° C and 1 atm: Liquid</li> <li>9.2 Molecular Weight: Not pertinent</li> <li>9.3 Boiling Point at 1 atm: 266–311°F = 130–155°C = 403–428°K</li> <li>9.4 Freezing Point: Not pertinent</li> <li>9.5 Critical Temperature: Not pertinent</li> </ul>
<ol> <li>PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>Physical State at 15° C and 1 atm: Liquid</li> <li>Molecular Weight: Not pertinent</li> <li>Boiling Point at 1 atm: 266-311°F = 130-155°C = 403-428°K</li> <li>Freezing Point: Not pertinent</li> <li>Critical Temperature: Not pertinent</li> <li>Critical Pressure: Not pertinent</li> </ol>
<ol> <li>PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>Physical State at 15° C and 1 atm: Liquid</li> <li>Molecular Weight: Not pertinent</li> <li>Boiling Point at 1 atm: 266–311°F = 130–155°C = 403–428°K</li> <li>Freezing Point: Not pertinent</li> <li>Critical Tensperature: Not pertinent</li> <li>Critical Pressure: Not pertinent</li> <li>Specific Gravity: 0.85–0.87 at 20°C (liquid)</li> </ol>
<ol> <li>PHYSICAL &amp; CHEMICAL PROPERTIES</li> <li>Physical State at 15° C and 1 atm: Liquid</li> <li>Molecular Weight: Not pertinent</li> <li>Boiling Point at 1 atm: 266-311°F = 130-155°C = 403-428°K</li> <li>Freezing Point: Not pertinent</li> <li>Critical Temperature: Not pertinent</li> <li>Critical Pressure: Not pertinent</li> </ol>

7. SHIPPING INFORMATION 7.1 Grades of Purity: Refined solvent; crude light solvent; crude heavy solvent 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement

7.4 Venting: Open (flame arrester) or pressure-

- ot
- OD):
- tential:
- sted
- (est.) 1.050 9.12 Latent Heat of Vaporization: 130–150 Btu/b = 71–81 ca/g = 3.0−3.4 × 10<sup>5</sup> J/kg 9.13 Heat of Combustion: (est.) −18,200 Btu/b = −10,100 ca/g = −424 × 10<sup>5</sup> J/kg 9.14 Heat of Pecomposition: Not pertinent
- 9.15 Heat of Solution: Not pertinent
- 9.16 Heat of Polymerization: Not pertinent
- 9.17 Heat of Fusion: Currently not available

9.9 Liquid Water Interfacial Tension: 39-51 dynes/cm = 0.039-0.051 N/m at 20°C 9.10 Vapor (Gas) Specific Gravity: Currently not available

9.11 Ratio of Specific Heats of Vapor (Gas): (est.) 1.030

- 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available

NOTES



http://zenstoves.net

## NAPHTHA: SOLVENT

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
50 52 54 56 68 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100	53.060 53.060	50 52 54 56 58 60 62 64 66 68 70 72 74 74 78 80 82 84 86 88 90 92 92 94 96 98 100	0.478 0.478	50 52 54 56 58 60 62 64 66 70 72 74 76 78 80 82 84 86 88 90 92 92 94 96 98 100	1.040 1.040	50 52 54 56 60 62 64 68 70 72 74 78 80 82 82 84 86 88 90 92 94 93 93 100	9.343 8.841 8.370 7.927 7.511 6.751 6.404 6.078 5.770 5.481 5.207 4.950 4.950 4.950 4.956 3.679 3.506 3.342 3.879 3.506 3.342 3.347 3.2901 2.901 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 N S O L U B L E	90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340	0.094 0.124 0.163 0.211 0.272 0.347 0.440 0.553 0.691 0.856 1.054 1.290 1.569 1.569 1.897 2.281 2.728 3.247 3.846 4.535 5.323 6.221 7.241 8.394 9.695 11.160 12.790		N O T E R T I N E N T		C U R R E N T L Y N O T A V A I L A B L E