

OILS, MISCELLANEOUS: SPRAY

OSY

CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Oily liquid	Light brown	Kerosene-like odor
Dormant oil Foliage oil Kerosene, heavy Plant spray oil				
Call fire department. Avoid contact with liquid. Notify local health and pollution control agencies. Protect water intakes.				
Fire	Combustible. Extinguish with foam, dry chemical, or carbon dioxide. Water may be ineffective on fire.			
Exposure	CALL FOR MEDICAL AID. LIQUID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. DO NOT INDUCE VOMITING.			
Water Pollution	Dangerous to aquatic life in high concentrations. 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: Burn;
 Absorb
 Clean shore line
 Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 33;
 Miscellaneous Hydrocarbon Mixtures
 2.2 **Formula:** Not applicable
 2.3 **IMO/UN Designation:** 3.3/1270
 2.4 **DOT ID No.:** 1268
 2.5 **CAS Registry No.:** Currently not available
 2.6 **NAERG Guide No.:** 128
 2.7 **Standard Industrial Trade Classification:**
 33450

3. HEALTH HAZARDS

3.1 **Personal Protective Equipment:** Protective gloves; goggles or face shield.
 3.2 **Symptoms Following Exposure:** Vapor causes slight irritation of eyes and nose. Liquid irritates stomach; if taken into lungs, causes coughing, distress, and rapidly developing edema.
 3.3 **Treatment of Exposure:** ASPIRATION: enforce bed rest; administer oxygen; call a doctor.
 INGESTION: do NOT induce vomiting; call a doctor. EYES: wash with copious amounts of water.
 SKIN: wipe off and wash with soap and 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; LD₅₀ = 0.5 to 5 g/kg
 3.8 **Toxicity by Inhalation:** Currently not available.
 3.9 **Chronic Toxicity:** Currently not available
 3.10 **Vapor (Gas) Irritant Characteristics:** Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
 3.11 **Liquid or Solid Characteristics:** Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin.
 3.12 **Odor Threshold:** 1 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:**
 140°F (min.) C.C.
 4.2 **Flammable Limits in Air:** 0.6%-4.6%
 4.3 **Fire Extinguishing Agents:** Foam, dry chemical, or carbon dioxide
 4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective
 4.5 **Special Hazards of Combustion Products:** Not pertinent
 4.6 **Behavior in Fire:** Not pertinent
 4.7 **Auto Ignition Temperature:** 475°F
 4.8 **Electrical Hazards:** Not pertinent
 4.9 **Burning Rate:** 4 mm/min.
 4.10 **Adiabatic Flame Temperature:** Currently not available
 4.11 **Stoichiometric 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 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:**
 500 ppm*/salmon fingerling/lethal/fresh water
 *Time period not specified
 6.2 **Waterfowl Toxicity:** Currently not available
 6.3 **Biological Oxygen Demand (BOD):** 53%, 5 days
 6.4 **Food Chain Concentration Potential:** None
 6.5 **GESAMP Hazard Profile:** Not listed

7. SHIPPING INFORMATION

7.1 **Grades of Purity:** Commercial
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** No requirement
 7.4 **Venting:** Open (flame arrester)
 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:** III
 8.4 **Marine Pollutant:** No
 8.5 **NFPA Hazard Classification:**

Category	Classification
Health Hazard (Blue).....	0
Flammability (Red).....	2
Instability (Yellow).....	0

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:** Not pertinent
 9.3 **Boiling Point at 1 atm:** 590-700°F = 310-371°C = 583-644°K
 9.4 **Freezing Point:** Not pertinent
 9.5 **Critical Temperature:** Not pertinent
 9.6 **Critical Pressure:** Not pertinent
 9.7 **Specific Gravity:** 0.82 at 15°C (liquid)
 9.8 **Liquid Surface Tension:** (est.) 25 dynes/cm = 0.025 N/m at 20°C
 9.9 **Liquid Water Interfacial Tension:** (est.) 50 dynes/cm = 0.05 N/m at 20°C
 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
 9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent
 9.12 **Latent Heat of Vaporization:** Not pertinent
 9.13 **Heat of Combustion:** -18,540 Btu/lb = -10,300 cal/g = -431.24 X 10³ 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
34	52.050	50	0.460	35	0.920	-35	10.600
36	51.980	52	0.461	40	0.919	-30	9.614
38	51.910	54	0.462	45	0.918	-25	8.739
40	51.850	56	0.463	50	0.917	-20	7.960
42	51.780	58	0.464	55	0.916	-15	7.266
44	51.710	60	0.465	60	0.915	-10	6.646
46	51.640	62	0.466	65	0.914	-5	6.090
48	51.570	64	0.467	70	0.913	0	5.592
50	51.500	66	0.468	75	0.912	5	5.144
52	51.430	68	0.469	80	0.911	10	4.740
54	51.360	70	0.470	85	0.910	15	4.376
56	51.290	72	0.471	90	0.909	20	4.046
58	51.220	74	0.472	95	0.908	25	3.747
60	51.150	76	0.473	100	0.907	30	3.476
62	51.080	78	0.474	105	0.906	35	3.229
64	51.010	80	0.475	110	0.905	40	3.004
66	50.940	82	0.476	115	0.904	45	2.799
68	50.870	84	0.477	120	0.903	50	2.612
70	50.800	86	0.478			55	2.440
72	50.740	88	0.479			60	2.282
74	50.670	90	0.480			65	2.138
76	50.600	92	0.481			70	2.005
78	50.530	94	0.482			75	1.883
80	50.460	96	0.483				
82	50.390	98	0.484				
84	50.320	100	0.485				

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	70	0.042		N		N
	N	75	0.049		O		O
	S	80	0.057		T		T
	O	85	0.065				
	L	90	0.076		P		P
	U	95	0.087		E		E
	B	100	0.100		R		R
	L	105	0.114		T		T
	E	110	0.131		I		I
		115	0.149		N		N
		120	0.170		E		E
		125	0.193		N		N
		130	0.218		T		T
		135	0.247				
		140	0.279				
		145	0.314				
		150	0.352				
		155	0.395				
		160	0.443				
		165	0.495				
		170	0.552				
		175	0.615				
		180	0.683				
		185	0.758				
		190	0.841				
		195	0.930				