

OILS, MISCELLANEOUS: RESIN

ORS

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms Codal Retinol Rosin oil Rosinol	Liquid Floats on water.	Light amber to red to black	Pinetree pitch odor
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. Exposure data not available. Flush affected areas with plenty of water.		
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	2. CHEMICAL DESIGNATIONS	3. HEALTH HAZARDS
Stop discharge Contain Collection Systems: Skim Clean shore line Salvage waterfowl	2.1 CG Compatibility Group: 33; Miscellaneous Hydrocarbon Mixtures 2.2 Formula: Not applicable 2.3 IMO/UN Designation: 3.2/1286 2.4 DOT ID No.: 1286 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: 127 2.7 Standard Industrial Trade Classification: 33429	3.1 Personal Protective Equipment: Currently not available 3.2 Symptoms Following Exposure: Currently not available 3.3 Treatment of Exposure: Currently not available 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Data not available, but toxicity is probably low. 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquor or Solid Characteristics: Currently not available 3.12 Odor Threshold: Currently not available 3.13IDLH 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	7. SHIPPING INFORMATION
4.1 Flash Point: 255–390°F O.C. 4.2 Flammable Limits in Air: Currently not available 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: 648°F 4.8 Electrical Hazards: Not pertinent 4.9 Burning Rate: Currently not available 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	7.1 Grades of Purity: A variety of grades that differ primarily in color and flash point. 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
5. CHEMICAL REACTIVITY	8. HAZARD CLASSIFICATIONS
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	8.1 49 CFR Category: Flammable liquid 8.2 49 CFR Class: 3 8.3 49 CFR Package Group: II 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
6. WATER POLLUTION	9. PHYSICAL & CHEMICAL PROPERTIES
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: Bioaccumulation: - Damage to living resources: - Human Oral hazard: - Human Contact hazard: - Reduction of amenities: -	9.1 Physical State at 15°C and 1 atm: Liquid 9.2 Molecular Weight: Not pertinent 9.3 Boiling Point at 1 atm: 572–750°F = 300–400°C = 573–673°K 9.4 Freezing Point: Not pertinent 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 0.96–1.02 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: (est.) -18,000 Btu/lb = -10,000 cal/g = -420 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
50	59.930	50	0.460	35	0.920		
52	59.930	52	0.461	40	0.919		
54	59.930	54	0.462	45	0.918		
56	59.930	56	0.463	50	0.917		
58	59.930	58	0.464	55	0.916		
60	59.930	60	0.465	60	0.915		
62	59.930	62	0.466	65	0.914		
64	59.930	64	0.467	70	0.913		
66	59.930	66	0.468	75	0.912		
68	59.930	68	0.469	80	0.911		
70	59.930	70	0.470	85	0.910		
72	59.930	72	0.471	90	0.909		
74	59.930	74	0.472	95	0.908		
76	59.930	76	0.473	100	0.907		
78	59.930	78	0.474	105	0.906		
80	59.930	80	0.475	110	0.905		
82	59.930	82	0.476	115	0.904		
84	59.930	84	0.477	120	0.903		
		86	0.478				
		88	0.479				
		90	0.480				
		92	0.481				
		94	0.482				
		96	0.483				
		98	0.484				
		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		T		T
		125	0.193		E		E
		130	0.218		R		R
		135	0.247		T		T
		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				