COPPER NAPHTHENATE

CNN

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
Paint drier	Liquid	Dark green	Gasoline-like odor
	May float or sink in water.		

Shut off ignition sources. Call fire department.
Notify local health and pollution control agencies.
Protect water intakes.

Fire	Combustible. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.
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	HARMFUL TO AQUATIC LIFE IN VERY LOW 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; Pump; Dredge
Chemical and Physical Treatment: Burn; Absorb
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: Mixture
2.3 IMO/UN Designation: 3.3/1168
2.4 DOT ID No.: Not listed
2.5 CAS Registry No.: 1338-02-9
2.6 NAERG Guide No.: Not listed.
2.7 Standard Industrial Trade Classification: 51550

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Goggles or face shield; plastic gloves (as for gasoline)
3.2 Symptoms Following Exposure: Vapor causes mild irritation of eyes and mild irritation of respiratory tract if inhaled. Ingestion causes irritation of stomach. Aspiration causes severe lung irritation and rapidly developing pulmonary edema; central nervous system excitement followed by depression.
3.3 Treatment of Exposure: INHALATION: remove victim to fresh air. EYES: wash with copious amounts of water for at least 15 min. SKIN: wipe off and wash with soap and water. INGESTION: do NOT induce vomiting; guard against aspiration into lungs. ASPIRATION: enforce bed rest; give oxygen; call a doctor.
3.4 TLV-TWA: Notice of intended change: 0.05 mg Cu/m^3 respirable particles
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Grade 1; oral rat LD_{50} = 4-6 g/kg
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Vapors are non-irritating to the eyes and throat.
3.11 Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of skin.
3.12 Odor Threshold: Currently not available
3.13 IDLH Value: 100 mg Cu/m^3 (dusts, mists, fumes)
3.14 OSHA PEL-TWA: 0.1 mg/m^3 as copper
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: 100°F C.C. (typical)
4.2 Flammable Limits in Air: 0.8%-5.0% (mineral spirits)
4.3 Fire Extinguishing Agents: Dry chemical, foam, 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: 540°F (mineral spirits)
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: 4 mm/min.
4.10 Adiabatic Flame Temperature: Currently 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 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: 2.0 ppm/72 hr/blue-green algae/100% kill/fresh water
6.2 Waterfowl Toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): 8%, 5 days
6.4 Food Chain Concentration Potential: None
6.5 GESAMP Hazard Profile:
Bioaccumulation: -
Damage to living resources: -
Human Oral hazard: 1
Human Contact hazard: -
Reduction of amenities: -

7. SHIPPING INFORMATION

7.1 Grades of Purity: 8% in mineral spirits or mineral oil. 5% in mineral spirits. May float instead of sink in water.
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: 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: Mixture
9.3 Boiling Point at 1 atm: 310-395°F = 154–202°C = 427–475°K
9.4 Freezing Point: Not pertinent
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 0.93-1.05 at 25°C (liquid)
9.8 Liquid Surface Tension: 20 dynes/cm = 0.020 N/m at 20°C
9.9 Liquid Water Interfacial Tension: 45 dynes/cm = 0.045 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.) –17,600 Btu/lb = –9,800 cal/g = –410 X 10^5 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
52	61.800	52	0.480	52	1.048	77	0.990
54	61.800	54	0.480	54	1.048		
56	61.800	56	0.480	56	1.048		
58	61.800	58	0.480	58	1.048		
60	61.800	60	0.480	60	1.048		
62	61.800	62	0.480	62	1.048		
64	61.800	64	0.480	64	1.048		
66	61.800	66	0.480	66	1.048		
68	61.800	68	0.480	68	1.048		
70	61.800	70	0.480	70	1.048		
72	61.800	72	0.480	72	1.048		
74	61.800	74	0.480	74	1.048		
76	61.800	76	0.480	76	1.048		
78	61.800	78	0.480	78	1.048		
80	61.800	80	0.480	80	1.048		
82	61.800	82	0.480	82	1.048		
84	61.800	84	0.480	84	1.048		
86	61.800	86	0.480	86	1.048		
88	61.800	88	0.480	88	1.048		
90	61.800	90	0.480	90	1.048		
92	61.800	92	0.480	92	1.048		
94	61.800	94	0.480	94	1.048		
96	61.800	96	0.480	96	1.048		
98	61.800	98	0.480	98	1.048		
100	61.800	100	0.480	100	1.048		
102	61.800	102	0.480	102	1.048		

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	0.093		N		N
	N	100	0.123		O		O
	S	110	0.161		T		T
	O	120	0.210				
	L	130	0.270		P		P
	U	140	0.345		E		E
	B	150	0.437		R		R
	L	160	0.550		T		T
	E	170	0.686		I		I
		180	0.851		N		N
		190	1.048		E		E
		200	1.282		N		N
		210	1.560		T		T
		220	1.886				
		230	2.269				
		240	2.714				
		250	3.231				
		260	3.828				
		270	4.513				
		280	5.298				
		290	6.192				
		300	7.208				
		310	8.358				
		320	9.654				
		330	11.110				
		340	12.740				