

# CAMPHENENE

CPH

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION		
Common Synonyms 2,2-Dimethyl-3-methylene norborane 3,3-Dimethyl-2-methylene norcamphane	Solid Floats on water.	White	Camphor-like odor	<p><b>4.1 Flash Point:</b> 108°F O.C. 92°F C.C. (typical)</p> <p><b>4.2 Flammable Limits in Air:</b> Currently not available</p> <p><b>4.3 Fire Extinguishing Agents:</b> Foam, dry chemical, carbon dioxide</p> <p><b>4.4 Fire Extinguishing Agents Not to Be Used:</b> Water</p> <p><b>4.5 Special Hazards of Combustion Products:</b> Currently not available</p> <p><b>4.6 Behavior in Fire:</b> Currently not available</p> <p><b>4.7 Auto Ignition Temperature:</b> Currently not available</p> <p><b>4.8 Electrical Hazards:</b> Currently not available</p> <p><b>4.9 Burning Rate:</b> Not pertinent</p> <p><b>4.10 Adiabatic Flame Temperature:</b> Currently not available</p> <p><b>4.11 Stoichiometric Air to Fuel Ratio:</b> 66.6 (calc.)</p> <p><b>4.12 Flame Temperature:</b> Currently not available</p> <p><b>4.13 Combustion Molar Ratio (Reactant to Product):</b> 18.0 (calc.)</p> <p><b>4.14 Minimum Oxygen Concentration for Combustion (MOCC):</b> Not listed</p>	<p><b>7.1 Grades of Purity:</b> Commercial, 75+%</p> <p><b>7.2 Storage Temperature:</b> Ambient</p> <p><b>7.3 Inert Atmosphere:</b> No requirement</p> <p><b>7.4 Venting:</b> Open</p> <p><b>7.5 IMO Pollution Category:</b> Currently not available</p> <p><b>7.6 Ship Type:</b> Currently not available</p> <p><b>7.7 Barge Hull Type:</b> Currently not available</p>		
<p>Keep people away. Avoid inhalation. Shut off ignition sources and call fire department. Avoid contact with solid and dust. Notify local health and pollution control agencies. Protect water intakes.</p>				<p><b>8. HAZARD CLASSIFICATIONS</b></p> <p><b>8.1 49 CFR Category:</b> Not listed.</p> <p><b>8.2 49 CFR Class:</b> Not pertinent</p> <p><b>8.3 49 CFR Package Group:</b> Not listed.</p> <p><b>8.4 Marine Pollutant:</b> No</p> <p><b>8.5 NFPA Hazard Classification:</b> Not listed</p> <p><b>8.6 EPA Reportable Quantity:</b> Not listed.</p> <p><b>8.7 EPA Pollution Category:</b> Not listed.</p> <p><b>8.8 RCRA Waste Number:</b> Not listed</p> <p><b>8.9 EPA FWPCA List:</b> Not listed</p>			
<p><b>Fire</b> Combustible. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire.</p>				<p><b>9. PHYSICAL &amp; CHEMICAL PROPERTIES</b></p> <p><b>9.1 Physical State at 15°C and 1 atm:</b> Solid</p> <p><b>9.2 Molecular Weight:</b> 136</p> <p><b>9.3 Boiling Point at 1 atm:</b> 310°F = 154°C = 427°K</p> <p><b>9.4 Freezing Point:</b> 122°F = 50°C = 323°K</p> <p><b>9.5 Critical Temperature:</b> Not pertinent</p> <p><b>9.6 Critical Pressure:</b> Not pertinent</p> <p><b>9.7 Specific Gravity:</b> 0.87 at 15°C (solid)</p> <p><b>9.8 Liquid Surface Tension:</b> Not pertinent</p> <p><b>9.9 Liquid Water Interfacial Tension:</b> Not pertinent</p> <p><b>9.10 Vapor (Gas) Specific Gravity:</b> Not pertinent</p> <p><b>9.11 Ratio of Specific Heats of Vapor (Gas):</b> Not pertinent</p> <p><b>9.12 Latent Heat of Vaporization:</b> Not pertinent</p> <p><b>9.13 Heat of Combustion:</b> -19,400 Btu/lb = -10,800 cal/g = -452 X 10<sup>6</sup> J/kg</p> <p><b>9.14 Heat of Decomposition:</b> Not pertinent</p> <p><b>9.15 Heat of Solution:</b> Not pertinent</p> <p><b>9.16 Heat of Polymerization:</b> Not pertinent</p> <p><b>9.17 Heat of Fusion:</b> Currently not available</p> <p><b>9.18 Limiting Value:</b> Currently not available</p> <p><b>9.19 Reid Vapor Pressure:</b> Currently not available</p>			
<p><b>Exposure</b> CALL FOR MEDICAL AID. DUST Irritating to eyes, nose and throat. If inhaled will cause headache or difficult breathing. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p><b>SOLID</b> 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. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p>				<p><b>5. CHEMICAL REACTIVITY</b></p> <p><b>5.1 Reactivity with Water:</b> No reaction</p> <p><b>5.2 Reactivity with Common Materials:</b> Currently not available</p> <p><b>5.3 Stability During Transport:</b> Stable</p> <p><b>5.4 Neutralizing Agents for Acids and Caustics:</b> Not pertinent</p> <p><b>5.5 Polymerization:</b> Not pertinent</p> <p><b>5.6 Inhibitor of Polymerization:</b> Not pertinent</p>			
<p><b>Water Pollution</b> Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>				<p><b>6. WATER POLLUTION</b></p> <p><b>6.1 Aquatic Toxicity:</b> Currently not available</p> <p><b>6.2 Waterfowl Toxicity:</b> Currently not available</p> <p><b>6.3 Biological Oxygen Demand (BOD):</b> Currently not available</p> <p><b>6.4 Food Chain Concentration Potential:</b> None</p> <p><b>6.5 GESAMP Hazard Profile:</b> Not listed</p>			
<p><b>1. CORRECTIVE RESPONSE ACTIONS</b></p> <p>Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Burn</p> <p><b>2. CHEMICAL DESIGNATIONS</b></p> <p>2.1 CG Compatibility Group: Not listed. 2.2 Formula: C<sub>10</sub>H<sub>16</sub> 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: 9011 2.5 CAS Registry No.: 79-92-5 2.6 NAERG Guide No.: 133 2.7 Standard Industrial Trade Classification: 51129</p> <p><b>3. HEALTH HAZARDS</b></p> <p>3.1 Personal Protective Equipment: Gloves and face shield</p> <p>3.2 Symptoms Following Exposure: Inhalation causes irritation of nose and throat. Contact with eyes or skin causes irritation.</p> <p>3.3 Treatment of Exposure: INHALATION: move victim to fresh air; call physician immediately. EYES: flush immediately with clean, cool water; call physician immediately. SKIN: wash with alcohol, follow with soap and water wash.</p> <p>3.4 TLV-TWA: Not listed.</p> <p>3.5 TLV-STEL: Not listed.</p> <p>3.6 TLV-Ceiling: Not listed.</p> <p>3.7 Toxicity by Ingestion: Currently not available</p> <p>3.8 Toxicity by Inhalation: Currently not available.</p> <p>3.9 Chronic Toxicity: Currently not available</p> <p>3.10 Vapor (Gas) Irritant Characteristics: Currently not available</p> <p>3.11 Liquid or Solid Characteristics: Currently not available</p> <p>3.12 Odor Threshold: Currently not available</p> <p>3.13 IDLH Value: Not listed.</p> <p>3.14 OSHA PEL-TWA: Not listed.</p> <p>3.15 OSHA PEL-STEL: Not listed.</p> <p>3.16 OSHA PEL-Ceiling: Not listed.</p> <p>3.17 EPA A EGL: Not listed</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
NOT PERTINENT			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

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
INSOLE		180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305	1.039 1.174 1.322 1.487 1.670 1.872 2.095 2.340 2.610 2.906 3.231 3.586 3.975 4.399 4.862 5.366 5.914 6.510 7.156 7.855 8.613 9.432 10.320 11.270 12.300 13.400	180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305	0.02059 0.02306 0.02579 0.02879 0.03208 0.03568 0.03963 0.04394 0.04865 0.05377 0.05935 0.06540 0.07198 0.07910 0.08680 0.09513 0.10410 0.11380 0.12420 0.13550 0.14750 0.16050 0.17430 0.18920 0.20510 0.22210		NOT PERTINENT