

DI-N-BUTYL KETONE

DBK

CAUTIONARY RESPONSE INFORMATION		
Common Synonyms 5-Nonanone S-Noranone	Liquid	Colorless to light yellow Floats on water. Freezing point is 21°F.
<p>Keep people away. Shut off ignition sources. Call fire department. Avoid contact with liquid and vapor. Notify local health and pollution control agencies. Protect water intakes.</p>		
Fire	Combustible. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.	
Exposure	<p>CALL FOR MEDICAL AID.</p> <p>VAPOR Irritating to eyes, nose and throat. If inhaled will cause coughing 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>LIQUID Irritating to skin and eyes. If swallowed will cause nausea and vomiting. 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>	
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
Dilute and disperse Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Absorb Clean shore line Salvage waterfowl	<p>2.1 CG Compatibility Group: Not listed. 2.2 Formula: $\text{CH}_3(\text{CH}_2)\text{CO}(\text{CH}_2)\text{CH}_3$ 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: 1224 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: 127 2.7 Standard Industrial Trade Classification: 51625</p>
<p>3. HEALTH HAZARDS</p> <p>3.1 Personal Protective Equipment: Rubber gloves; goggles or face shield</p> <p>3.2 Symptoms Following Exposure: Inhalation causes irritation of nose and throat. Ingestion causes irritation of mouth and stomach. Contact with eyes or skin causes irritation.</p> <p>3.3 Treatment of Exposure: INHALATION: remove to fresh air; administer artificial respiration if needed. EYES: flush with water for at least 15 min. SKIN: flush with water.</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 AEGL: Not listed</p>	

4. FIRE HAZARDS	7. SHIPPING INFORMATION
4.1 Flash Point: Currently not available	7.1 Grades of Purity: 98 + %
4.2 Flammable Limits in Air: Currently not available	7.2 Storage Temperature: Ambient
4.3 Fire Extinguishing Agents: Foam, dry chemical, carbon dioxide	7.3 Inert Atmosphere: No requirement
4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective.	7.4 Venting: Open (flame arrester)
4.5 Special Hazards of Combustion Products: Currently not available	7.5 IMO Pollution Category: Currently not available
4.6 Behavior in Fire: Currently not available	7.6 Ship Type: Currently not available
4.7 Auto Ignition Temperature: Currently not available	7.7 Barge Hull Type: Currently not available
4.8 Electrical Hazards: Currently not available	8. HAZARD CLASSIFICATIONS
4.9 Burning Rate: Currently not available	8.1 49 CFR Category: Not listed
4.10 Adiabatic Flame Temperature: Currently not available	8.2 49 CFR Class: Not pertinent
4.11 Stoichiometric Air to Fuel Ratio: 61.9 (calc.)	8.3 49 CFR Package Group: Not listed
4.12 Flame Temperature: Currently not available	8.4 Marine Pollutant: No
4.13 Combustion Molar Ratio (Reactant to Product): 18.0 (calc.)	8.5 NFPA Hazard Classification: Not listed
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	8.6 EPA Reportable Quantity: Not listed
9. PHYSICAL & CHEMICAL PROPERTIES	
9.1 Physical State at 15° C and 1 atm: Liquid	
9.2 Molecular Weight: 142	
9.3 Boiling Point at 1 atm: 370°F = 188°C = 461°K	
9.4 Freezing Point: 21°F = -6°C = 267°K	
9.5 Critical Temperature: Not pertinent	
9.6 Critical Pressure: Not pertinent	
9.7 Specific Gravity: 0.822 at 20°C (liquid)	
9.8 Liquid Surface Tension: 26.60 dynes/cm = 0.0266 N/m at 21.1°C	
9.9 Liquid Water Interfacial Tension: Currently not available	
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: 161 Btu/lb = 89.6 cal/g = 3.75 X 10 ³ J/kg	
9.13 Heat of Combustion: -16,080 Btu/lb = -8,930 cal/g = -374 X 10 ³ 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
35	51.430		N	51	1.048		N
40	51.410		O	52	1.048		O
45	51.400		T	53	1.048		T
50	51.390			54	1.048		
55	51.370		P	55	1.048		
60	51.360		E	56	1.048		
65	51.340		R	57	1.048		
70	51.330		T	58	1.048		
75	51.320		I	59	1.048		
80	51.300		N	60	1.048		
85	51.290		E	61	1.048		
90	51.270		N	62	1.048		
95	51.260		T	63	1.048		
100	51.250			64	1.048		
				65	1.048		
				66	1.048		
				67	1.048		
				68	1.048		
				69	1.048		
				70	1.048		
				71	1.048		
				72	1.048		
				73	1.048		
				74	1.048		
				75	1.048		
				76	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		130	0.294	130	0.00660		N
N		140	0.368	140	0.00813		O
S		150	0.458	150	0.00994		T
O		160	0.566	160	0.01208		
L		170	0.694	170	0.01458		
U		180	0.846	180	0.01749		
B		190	1.024	190	0.02086		
L		200	1.234	200	0.02474		
E		210	1.477	210	0.02918		
		220	1.760	220	0.03425		
		230	2.086	230	0.04000		
		240	2.460	240	0.04651		
		250	2.888	250	0.05383		
		260	3.375	260	0.06204		
		270	3.928	270	0.07120		
		280	4.552	280	0.08141		
		290	5.255	290	0.09273		
		300	6.044	300	0.10520		
		310	6.926	310	0.11900		
		320	7.909	320	0.13420		
		330	9.001	330	0.15080		
		340	10.210	340	0.16890		
		350	11.550	350	0.18860		
		360	13.020	360	0.21010		
		370	14.640	370	0.23340		