

DIMETHYLPOLYSILOXANE

DMP

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Dimethyl silicone fluids Dimethyl silicone oil Poly(dimethylsiloxane) Silicone fluids	Liquid	Colorless	Odorless
	Floats on water.		
Keep people away. 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.		
Exposure	Call for medical aid. LIQUID Irritating to eyes. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.		
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

Stop discharge
 Contain
 Collection Systems: Skim; Pump
 Chemical and Physical Treatment: Burn;
 Absorb
 Clean shore line
 Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
 2.2 **Formula:** (CH₃)₂Si-O-[Si(CH₃)₂O]_n-Si(CH₃)₂
 2.3 **IMO/UN Designation:** Not listed
 2.4 **DOT ID No.:** Not listed
 2.5 **CAS Registry No.:** Currently not available
 2.6 **NAERG Guide No.:** Not listed
 2.7 **Standard Industrial Trade Classification:** 51550

3. HEALTH HAZARDS

3.1 **Personal Protective Equipment:** Safety goggles.
 3.2 **Symptoms Following Exposure:** Contact of liquid with eyes may cause temporary discomfort. Does not irritate skin. Harmless when ingested.
 3.3 **Treatment of Exposure:** Except for eye contact, exposures generally do not require treatment. EYES: flush with water.
 3.4 **TLV-TWA:** Not listed.
 3.5 **TLV-STEL:** Not listed.
 3.6 **TLV-Ceiling:** Not listed.
 3.7 **Toxicity by Ingestion:** Currently not available
 3.8 **Toxicity by Inhalation:** Currently not available.
 3.9 **Chronic Toxicity:** None
 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available
 3.11 **Liquid or Solid Characteristics:** Currently not available
 3.12 **Odor Threshold:** Currently not available
 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:** 275-635°F O.C.
 4.2 **Flammable Limits in Air:** Not pertinent
 4.3 **Fire Extinguishing Agents:** Foam, dry chemical, 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:** 820-860°F
 4.8 **Electrical Hazards:** Not pertinent
 4.9 **Burning Rate:** Not pertinent
 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:** 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:** Currently not available
 6.5 **GESAMP Hazard Profile:** Not listed

7. SHIPPING INFORMATION

7.1 **Grades of Purity:** A series of compounds having viscosities of from 50 to 100,000 cp is available.
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** No requirement
 7.4 **Venting:** Open
 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:** Not pertinent
 9.3 **Boiling Point at 1 atm:** > 300°F = > 149°C = > 422°K
 9.4 **Freezing Point:** Not pertinent
 9.5 **Critical Temperature:** Not pertinent
 9.6 **Critical Pressure:** Not pertinent
 9.7 **Specific Gravity:** 0.98 at 20°C (liquid)
 9.8 **Liquid Surface Tension:** 19-21 dynes/cm = 0.019-0.021 N/m at 20°C
 9.9 **Liquid Water Interfacial Tension:** (est.) 30 dynes/cm = 0.030 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.) -11,000 Btu/lb = -6,200 cal/g = -260 X 10⁵ 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	62.350	52	0.400	52	1.209		N
36	62.280	54	0.400	54	1.209		O
38	62.210	56	0.400	56	1.209		T
40	62.140	58	0.400	58	1.209		
42	62.080	60	0.400	60	1.209		P
44	62.010	62	0.400	62	1.209		E
46	61.940	64	0.400	64	1.209		R
48	61.870	66	0.400	66	1.209		T
50	61.800	68	0.400	68	1.209		I
52	61.730	70	0.400	70	1.209		N
54	61.660	72	0.400	72	1.209		E
56	61.590	74	0.400	74	1.209		N
58	61.520	76	0.400	76	1.209		T
60	61.450	78	0.400	78	1.209		
62	61.380	80	0.400	80	1.209		
64	61.310	82	0.400	82	1.209		
66	61.240	84	0.400	84	1.209		
68	61.170	86	0.400	86	1.209		
70	61.100						
72	61.030						
74	60.970						
76	60.900						
78	60.830						
80	60.760						
82	60.690						
84	60.620						

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
68	0.100		N O T P E R T I N E N T		N O T P E R T I N E N T		N O T P E R T I N E N T