

DIETHYLENE GLYCOL MONOMETHYL ETHER

DGM

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION								
Common Synonyms Diethylene glycol methyl ether Dowanol DM 2-(2-Methoxyethoxy)-ethanol Methyl carbitol Poly-solv DM	Liquid Floats and mixes with water.	Colorless Pleasant odor		<p>4.1 Flash Point: 200°F O.C.</p> <p>4.2 Flammable Limits in Air: LFL = 1.2%</p> <p>4.3 Fire Extinguishing Agents: Water, carbon dioxide, or dry chemical</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent</p> <p>4.5 Special Hazards of Combustion Products: Not pertinent</p> <p>4.6 Behavior in Fire: Not pertinent</p> <p>4.7 Auto Ignition Temperature: Currently not available</p> <p>4.8 Electrical Hazards: Not pertinent</p> <p>4.9 Burning Rate: Currently not available</p> <p>4.10 Adiabatic Flame Temperature: Currently not available</p> <p>4.11 Stoichiometric Air to Fuel Ratio: 30.9 (calc.)</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): 11.0 (calc.)</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7.1 Grades of Purity: Commercial</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: No requirement</p> <p>7.4 Venting: Open (flame arrester)</p> <p>7.5 IMO Pollution Category: D</p> <p>7.6 Ship Type: Data not available</p> <p>7.7 Barge Hull Type: Currently not available</p>								
Call fire department. Avoid contact with liquid. Notify local health and pollution control agencies. Protect water intakes.					8. HAZARD CLASSIFICATIONS								
Fire Exposure Water Pollution	Combustible. Extinct with dry chemical, water, or carbon dioxide. Cool exposed containers with water.	CALL FOR MEDICAL AID. LIQUID Irritating to eyes. Harmful if swallowed. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.	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>8.1 49 CFR Category: Not listed</p> <p>8.2 49 CFR Class: Not pertinent</p> <p>8.3 49 CFR Package Group: Not listed</p> <p>8.4 Marine Pollutant: No</p> <p>8.5 NFPA Hazard Classification:</p> <table> <thead> <tr> <th>Category</th> <th>Classification</th> </tr> </thead> <tbody> <tr> <td>Health Hazard (Blue).....</td> <td>1</td> </tr> <tr> <td>Flammability (Red).....</td> <td>1</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </tbody> </table> <p>8.6 EPA Reportable Quantity: Not listed</p> <p>8.7 EPA Pollution Category: Not listed</p> <p>8.8 RCRA Waste Number: Not listed</p> <p>8.9 EPA FWC List: Not listed</p>	Category	Classification	Health Hazard (Blue).....	1	Flammability (Red).....	1	Instability (Yellow).....	0	9. PHYSICAL & CHEMICAL PROPERTIES
Category	Classification												
Health Hazard (Blue).....	1												
Flammability (Red).....	1												
Instability (Yellow).....	0												
1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge	2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 40; Glycol ether 2.2 Formula: <chem>CH3OCH2CH2OCH2CH3OH</chem> 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 111-77-3 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51616	3. HEALTH HAZARDS 3.1 Personal Protective Equipment: Safety goggles. 3.2 Symptoms Following Exposure: Liquid may irritate eyes. 3.3 Treatment of Exposure: SKIN OR 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: Grade 2; LD ₅₀ = 0.5 to 5 g/kg (guinea pig) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritancy Characteristics: None 3.11 Liquid or Solid Characteristics: None 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. WATER POLLUTION 6.1 Aquatic Toxicity: Currently not available 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): 34% of theoretical in 5 days 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 0 Human Oral hazard: 1 Human Contact hazard: I Reduction of amenities: X	<p>9.1 Physical State at 15°C and 1 atm: Liquid</p> <p>9.2 Molecular Weight: 120.15</p> <p>9.3 Boiling Point at 1 atm: 381°F = 194°C = 467°K</p> <p>9.4 Freezing Point: -120°F = -85°C = 188°K</p> <p>9.5 Critical Temperature: Not pertinent</p> <p>9.6 Critical Pressure: Not pertinent</p> <p>9.7 Specific Gravity: 1.025 at 20°C (liquid)</p> <p>9.8 Liquid Surface Tension: Not pertinent</p> <p>9.9 Liquid Water Interfacial Tension: Not pertinent</p> <p>9.10 Vapor (Gas) Specific Gravity: Not pertinent</p> <p>9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent</p> <p>9.12 Latent Heat of Vaporization: 160 Btu/lb = 90 cal/g = 3.8 X 10⁵ J/kg</p> <p>9.13 Heat of Combustion: -10,830 Btu/lb = -6020 cal/g = -252 X 10⁵ J/kg</p> <p>9.14 Heat of Decomposition: Not pertinent</p> <p>9.15 Heat of Solution: Not pertinent</p> <p>9.16 Heat of Polymerization: Not pertinent</p> <p>9.17 Heat of Fusion: Currently not available</p> <p>9.18 Limiting Value: Currently not available</p> <p>9.19 Reid Vapor Pressure: 0.01 psia</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
52	64.540	85	0.518		N		N
54	64.469	90	0.521		O		O
56	64.400	95	0.524		T		T
58	64.330	100	0.527		P		P
60	64.259	105	0.529		R		R
62	64.190	110	0.532		T		T
64	64.120	115	0.535		I		I
66	64.049	120	0.538		N		N
68	63.980	125	0.541		E		E
70	63.910	130	0.543		N		N
72	63.840	135	0.546		E		E
74	63.780	140	0.549		N		N
76	63.710	145	0.552		E		E
78	63.640	150	0.554		T		T
80	63.570						
82	63.500						
84	63.430						
86	63.360						

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
M	60	0.003	60	0.0006		N	
I	80	0.006	80	0.0013		O	
S	100	0.014	100	0.0027		T	
C	120	0.028	120	0.0054		P	
I	140	0.055	140	0.0103		R	
B	160	0.103	160	0.0186		T	
L	180	0.186	180	0.00326		E	
E	200	0.324	200	0.00550		N	
	220	0.545	220	0.00898		O	
	240	0.892	240	0.01426		T	
	260	1.418	260	0.02206		P	
	280	2.200	280	0.03330		R	
	300	3.335	300	0.04914		T	
	320	4.949	320	0.07104		E	
	340	7.199	340	0.10080		N	
	360	10.280	360	0.14040		O	
	380	14.440	380	0.19250		T	