

# DIETHYLENE GLYCOL

CAS NO. 111-46-6

Product Description	Key Features	Applications
<ul style="list-style-type: none"> <li>Di Ethylene glycol (DEG) is a colorless, low-volatility, low viscosity, hygroscopic liquid. Under normal conditions, DEG has no detectable odor; however, under high vapor concentrations, a slightly sweet odor may be detected. DEG is completely miscible with water and many organic liquids. The reactivity and solubility of DEG provide the basis for many applications.</li> </ul>	<ul style="list-style-type: none"> <li>Low volatility</li> <li>Low viscosity</li> <li>Hygroscopic</li> <li>Completely miscible with water and many organic liquids</li> <li>Readily biodegradable</li> </ul>	<ul style="list-style-type: none"> <li>Plasticizer for paper</li> <li>Composition cork</li> <li>Glues &amp; adhesives</li> <li>Glass-grinding aids</li> <li>Fiber-finish component</li> <li>Cement-grinding aids</li> <li>Mold release agent</li> <li>Stabilizer for soluble oil dispersions</li> <li>Compatibilizer for dye and printing ink components</li> <li>Aromatic and paraffinic hydrocarbon separations</li> <li>Printing ink/paint pigments/dyes/ Latex paint</li> <li>Antifreeze</li> <li>Deicing fluids, Heat transfer fluids</li> <li>Drywall joint compound</li> <li>Belt wetting agent</li> <li>Unsaturated polyester resin</li> <li>Plasticizer intermediate for nitrocellulose lacquers, enamels and adhesives</li> </ul>

Properties	Typical Value	Unit	Test Based On
Acidity as Acetic acid	50 Max	ppm wt	ASTM D1613
Assay	99.8 Min	% wt	
Autoignition Temperature	372 (702)	°C (°F)	
Boiling Point @ 760 mmHg			
Dry Point	250 (480)	°C (°F)	
Initial	242 (468)	°C (°F)	
Color Pt-Co	10 Max	mg Pt/L	ASTM D5386
Critical Pressure	46	atm	
Critical Temperature	408	°C	
Empirical Formula	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>		
Evaporation Rate (n-butyl acetate = 1)	<0.001	-	
Expansive Limits in Air			
Lower	2	vol%	
Upper	12.3	vol%	
Flash Point	143 (289)	°C (°F)	Closed cup
Freezing Point	-10 (14)	°C (°F)	
Hansen Solubility Parameters			
Hydrogen bonding	20.7	-	
Nonpolar	16.6	-	
Polar	12.0	-	
Total	29.1	-	
Heat of Combustion	-5343	cal/g	
Heat of Vaporization	150	cal/g	
Liquid Heat Capacity @ 25 °C	243.9	J/mol.K	
Liquid Viscosity @ 20 °C	35.7	cP (mPa.s)	
Molecular Weight	106.1	-	
Refractive Index @ 20°C	1.4472	-	
Solubility			
In water, @ 20 °C	Complete		
Water in, @ 20 °C	Complete		
Specific Gravity @ 20°C/20°C	1.1175 – 1.1195	-	ASTM D4052-2015
Surface Tension @ 20 °C	55.1	Dynes/cm	
Vapor Density (air = 1)	3.66	-	
Vapor Pressure	0.006	mmHg	
Wt/Vol	1.12	g/cm <sup>3</sup>	

## Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup>Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

For additional technical, sales and order assistance please contact our sales representative

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