



Methyl PROXITOL®

TECHNICAL DATASHEET

Propylene Glycol Ethers
 SICC Product Code: U5141
 CAS Registry Number: 107-98-2
 EC Number: 203-539-1

Description

Methyl PROXITOL® is a colourless, hygroscopic solvent with volatility, viscosity and solvent power similar to those of ethylene oxide-based glycol ethers.

Typical Physical Properties

Property	Unit	Value	Method
Purity, min.	%m/m	99.5	GC
Water	%m/m	0.02	ASTM D1364
Acidity (as Acetic Acid)	%m/m	0.001	ASTM D1613
Density at 20°C	kg/l	0.921	ASTM D4052
Specific Gravity at 20°C/20°C	-	0.923	ASTM D4052
Specific Gravity at 25°C/25°C	-	0.919	ASTM D4052
Coefficient of Cubic Expansion at 20°C	10 ⁻⁴ /°C	10	Calculated
Refractive Index at 20°C	-	1.403	ASTM D1218
Colour	Pt-Co	< 5	ASTM D1209
Relative Evaporation rate (nBuAc=1)	-	0.75	ASTM D3539
Antoine Constant A [#]	kPa, °C	7.01882	-
Antoine Constant B [#]	kPa, °C	1780.17	-
Antoine Constant C [#]	kPa, °C	236.322	-
Antoine Constants: Temperature range	°C	-30 to +130	-

Notes:

#: In the Antoine temperature range, the vapour pressure P (kPa) at temperature T (°C) can be calculated by means of the Antoine equation: $\log P = A - B/(T+C)$.



Typical Physical Properties

Property	Unit	Value	Method
Vapour Pressure @ 20°C	kPa	1.2	Calculated
Vapour Pressure @ 50°C	kPa	6.3	Calculated
Saturated Vapour Concentration @ 20°C	g/m ³	44	Calculated
Boiling point	°C	120	-
Volatile Organic Compound (VOC)	g/l	921	EU/EPA
Flashpoint (Abel)	°C	33	IP 170
Auto Ignition Temperature	°C	290	ASTM E659
Lower Explosion Limit in Air	%v/v	1.9	-
Upper Explosion Limit in Air	%v/v	13.1	-
Electrical Conductivity at 20°C	pS/m	3*10 ⁷	ASTM D4308
Dielectric Constant at 20°C	-	12.3	-
Freezing Point	°C	-96	-
Surface Tension @ 20°C	mN/m	28	-
Viscosity at 20°C	mPa.s	1.9	-
Hildebrand Solubility Parameter	(cal/cm ³) ^{1/2}	9.5	-
Hydrogen Bonding Index	-	0.0	-
Fraction Polarity	-	0.110	-
Heat of Vaporization at T _{boil}	kJ/kg	427	-
Heat of Combustion (Net) at 25°C	kJ/kg	26000	-
Specific Heat at 20°C	kJ/kg/°C	2.23	-
Thermal Conductivity at 20°C	W/m/°C	0.18	-
Miscibility at 20°C: Solvent in water	%m/m	complete	-
Miscibility at 20°C: Water in solvent	%m/m	complete	-
Azeotrope with Water: Boiling Point	°C	96.5	-
Azeotrope with Water: Solvent Content	%m/m	52.9	-
Molecular Weight	g/mol	90	-



Test Methods

Copies of copyrighted test methods can be obtained from the issuing organisations:

- American Society for Testing and Materials (ASTM)
- International Organization for Standardization (ISO)
- Deutsches Institut für Normung (DIN)

Shell Method Series (SMS) methods are issued by Shell Global Solutions International B.V., Shell Technology Centre, Amsterdam, The Netherlands. Requests for copies of SMS can be made through your local Shell Chemicals company.

N.B: For routine quality control local test methods may be applied. Such methods have been validated against those mentioned in this datasheet.

Quality

Methyl PROXITOL® does not contain detectable quantities of polycyclic aromatics, heavy metals or chlorinated compounds.

Hazard Information

For detailed Hazard Information please refer to the Safety Data Sheet.

Access Safety Data Sheets here: [Safety Data Sheets](#)

Storage and Handling

Provided proper storage and handling precautions are taken we would expect Methyl PROXITOL® to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet

Shell Warranties

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