
Methyl tetraglycol

Technical Datasheet

Chemical Characterization

Tetraethylene glycol monomethyl ether

Homologous mixture, n = 3–6

Main components are:

Methyl tetraglycol (min. 60%) CAS-Nr.: 23783-42-8

Methyl pentaglycol CAS-Nr.: 23778-52-1

Registrations: EINECS (Europe), TSCA (USA), AICS (Australian),
DSL (Canada), ECL (Korea), PICCS (Philippines), ENCS (Japan)

Product Description

Methyl tetraglycol is a clear yellowish, slightly hygroscopic and slightly mobile liquid with an extremely faint odour. It is miscible in any ratio with water and the usual organic solvents. Methyl tetraglycol exerts to the typical alcohol reactions.

Methyl tetraglycol is used as a hydraulic fluid component e.g. in brake fluids. Because of its high dissolving power methyl tetraglycol is used in water-borne and solvent-borne coating formulations and as dispersing agent.

Furthermore, methyl tetraglycol finds many applications in biochemistry and medicine, e.g. in herbicide formulations, X-ray contrast media and medicinal drugs. Also, the esterification with peptides influences the hydrophilic properties as well as the immunochemical resistance. In the electronic industry methyl tetraglycol is used in soldering agents and as regenerations fluid for LCD-cells.

Storage advices

Glycol ethers and their derivatives tend to form peroxides in the presence of air or oxygen.

Due to the hygroscopicity of methyl tetraglycol correct storage in order to prevent absorption of water has to be ensured. It is recommended to reduce moisture pickup by nitrogen blanketing of storage tanks. Drying agents (silica gel) should be used if the tank is able to breath. Storage tanks should be made from stainless steel. Alumina and other light metals are not suitable due to alcoholate formation with methyl tetraglycol.

For further information please refer to the safety data sheet

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molar mass	g/mol	ca. 208
boiling range/1013 hPa	°C	280–350
solidification point (DIN 51583)	°C	-39
flash point (DIN 51758)	°C	161
ignition temperature (DIN 51794)	°C	325
vapour pressure/20 °C	mbar	< 0,1
density/20 °C (DIN 51757)	g/cm ³	ca. 1,06
kinematic viscosity/20 °C (DIN 51562)	mm ² /s	11,5-12,5
miscibility with water/25 °C		100% miscible
specific heat capacity	kJ/kgK	2,4

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