Technical Data Sheet

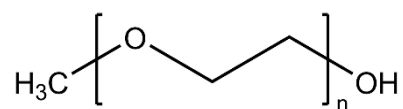**MATERIAL:**   Poly(ethylene glycol) monomethyl ether

CATALOG NUMBER: 498

CAS NUMBER: 9004-74-4

DESCRIPTION: Mono-methoxy terminated polyethylene glycol

FORMULA: $(C_2H_4O)_x \, CH_4O$

TYPICAL PROPERTIES:

Appearance:	Fused mass
Approx Mw:	750
Density:	1.082 (20°C)
Refractive index:	n_D^{20} 1.459
Viscosity:	10.5 cs (99°C)
Melting point:	30°C
Boiling point:	> 200°C (dec)
Flash point:	415°F
Solubility:	Acetone, chloroform, cyclohexanone, dichloromethane, DMF, MEK, toluene (hot), water

GENERAL INFORMATION: Prepared by the anionic ring opening polymerization of ethylene oxide. Each chain has a methyl group at one end of the polymer chain and are, thererfore, more compatible with hydrocarbons than the corresponding polyethylene glycols. In general, as the molecular weight of polyethylene glycols increases, water solubility, vapor pressure, hydroscopicity and solubility in organic solvents decrease; at the same time freezing or melting range, specific gravity, flash point, and viscosity increase. Methoxy terminated polyethylene glycols can be converted through their primary alcohol groups to monoesters, amines, acetals, and diethers. Low molecular weight polyethylene glycols are used as intermediates in chemical manufacturing (e.g. surfactants and thickeners), in pharmaceutical applications (e.g. ointments, suppositories) and in cosmetics (creams and lotions).

STRUCTURE: