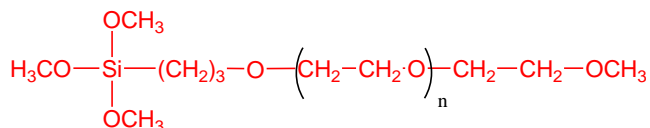


Sample Name:

Trimethoxysilyl terminated Polyethylene glycol methyl ether
 ω -Trimethoxysilane Terminated Poly(ethylene glycol) methyl ether

Sample #: P6788-EGTMS

Structure:**Composition:**

Mn x 10 ³	PDI (Mw/Mn)
0.35	1.20

Synthesis Procedure:

Allyl Terminated Poly(ethylene glycol) was prepared by anionic living polymerization of ethylene oxide using a methoxy ethanol – potassium salt followed by terminated with trimethoxy propyl chloride:

Characterization:

By Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 1 vol% (Et)₃N as the eluent. The molecular weights were determined using light scattering detector and viscosity detector. The molecular weights and the polydispersity index were calculated.

An aqueous GPC column from Supelco(G5000 PWXL) was also used with 0.5 M acetic acid and 0.8 M NaNO₃ as the eluent. It was kept at a constant temperature of 50°C. The flow rate was 1.0 ml/min. The column was calibrated with monodisperse poly(ethylene oxide) standards. The molecular weights and the polydispersity index of polyethylene oxide were calculated by GPC software.

Functionality:

Functionality of the polymer was determined by H NMR analysis or FT-IR spectroscopy.

Solubility:

Polymer is soluble in water, methanol and ethanol, THF, CHCl₃.

H NMR of the polymer: