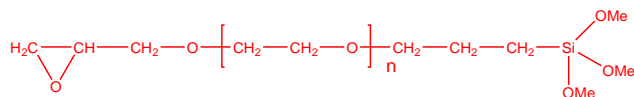


Sample Name:

α -Epoxy, ω -Trimethoxy Terminated Poly(ethylene glycol)

Sample #: P6407D-EGEPOTMS

Structure:



Composition:

Mn x 10 ³	PDI
0.70	1.20

Synthesis Procedure:

α -epoxy, ω -allyl terminated poly(ethylene glycol) was synthesized by anionic living polymerization of ethylene oxide. The hydrosilation was carried out in the presence of a catalyst and the degree of hydrosilation was found over 98% as evidenced from H NMR spectroscopy. The procedure is proprietary.

Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

Functionality:

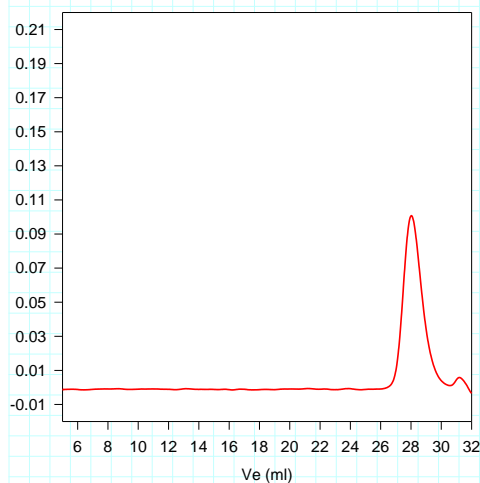
Functionality of the polymer was determined by H NMR analysis or FT-IR spectroscopy.

Solubility:

Polymer is soluble in chloroform and THF; it will be soluble in water, methanol and ethanol too, but trimethoxysilyl will be hydrolyzed. It is precipitated out from cold hexane and ether(-20°C).

SEC profile of Poly(ethylene glycol)

P6407-EGAllyIOH
(Precursor of P6407D-EGEPOTMS)



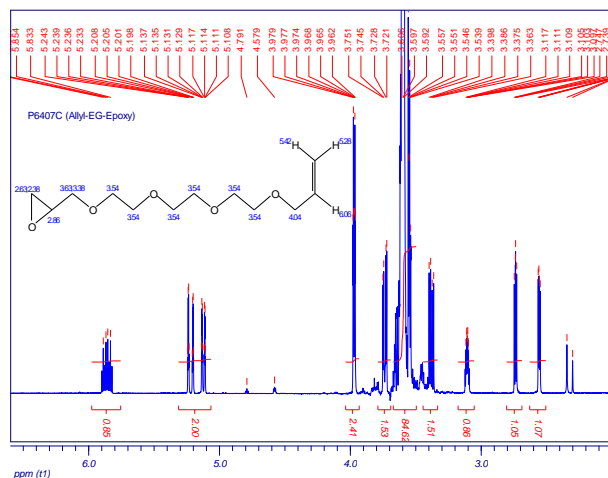
Size exclusion chromatography of α -Allyl- ω -hydroxy poly(ethylene glycol):

— Allyl terminated Poly(ethylene oxide):

M_n=700, M_w=840, M_w/M_n=1.20

HNMR of the product:

1. Allyl terminated PEG



H2. NMR of the Trimethoxy terminated PEG-Epoxy

