

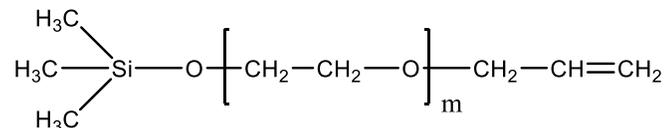
Sample Name: α -Trimethyl siloxy, ω -Allyl Terminated Poly(ethylene glycol)

or
O-

ALLYLOXY(POLYETHYLENEOXY)TRIMETHYLSILANE

Sample #: P42772-EG-TMSAllyl

Structure:



Composition:

| Mn x 10 ³ | PDI | Dp | Allyl functionality (TMS functionality) |
|----------------------|------|----|-----------------------------------------|
| 0.4 | 1.08 | 9 | > 98% |
| 0.4 | 1.08 | 9 | (>75%) |

Synthesis Procedure:

α -TMS, ω -allyl terminated poly(ethylene glycol) was synthesized by anionic living polymerization.

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.

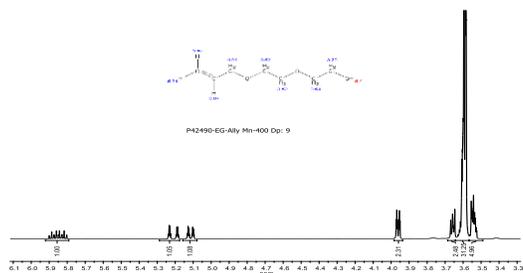
Functionality:

Functionality of the polymer was determined by ¹H NMR analysis.

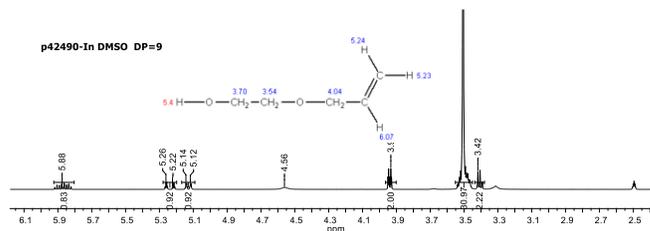
Solubility:

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

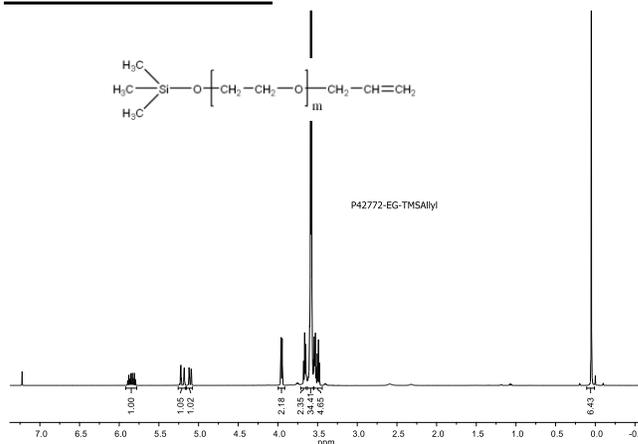
¹H-NMR spectrum of the product in CdCl₃ of ALLYL PEG used:



¹H-NMR spectrum of the product(allyl PEG) in DMSO at 500MHz:



¹H-NMR spectrum of the product(TMS-allyl PEG) in CdCl₃ at 400MHz:



SEC profile of Poly(ethylene glycol) allyl ether:

Agilent GPC/SEC Software
Reviewer Report

Agilent Technologies

Workspace Details
Workspace name
Location
Comments
Created by
Calibration 2020-05-25
C:\ProgramData\Agilent Technologies\GPC\Workspaces\Calibration 2020-05-25
agilent2 at 10:50:19 AM on May-25-20

Chromatogram Plot

