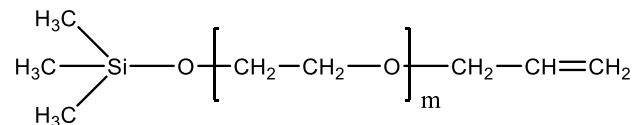


Sample Name:  $\alpha$ -Trimethylsiloxy,  $\omega$ -Allyl Terminated Poly(ethylene glycol)

Sample #: P42773-EGTMSAllyl

#### Structure:



#### Composition:

Mn x 10 <sup>3</sup>	PDI	Dp	Allyl functionality (TMS functionality)
0.5	1.08	12	> 98%
0.5	1.08	12	> 98%

#### Synthesis Procedure:

$\alpha$ -Trimethyl siloxy,  $\omega$ -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.

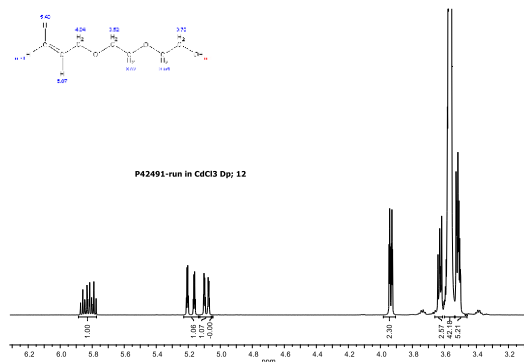
#### Functionality:

Functionality of the polymer was determined by <sup>1</sup>H-NMR data analysis.

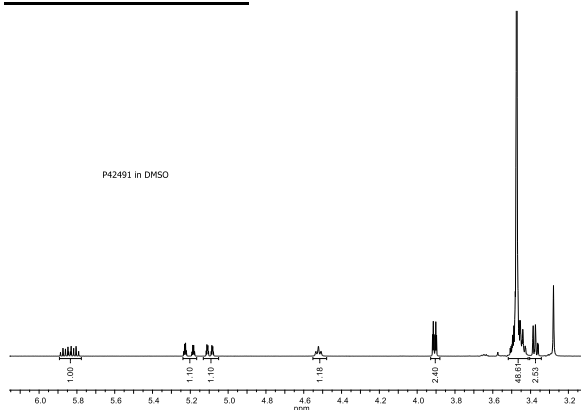
#### Solubility:

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).

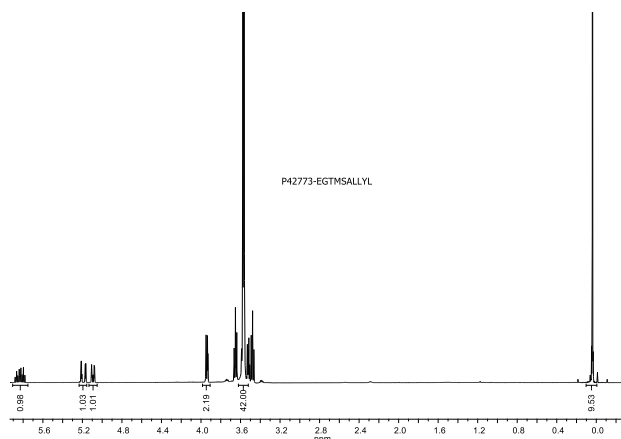
#### <sup>1</sup>H-NMR spectrum of the product (PEG allyl) in CdCl<sub>3</sub>:



#### <sup>1</sup>H-NMR spectrum of the product (PEG allyl) in DMSO at 500MHz:



#### <sup>1</sup>H-NMR spectrum of the product (PEG-TMS allyl) in CdCl<sub>3</sub> 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

