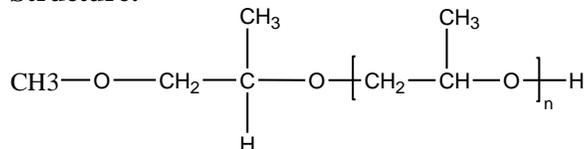


Sample Name:

Poly propylene glycol methyl ether

Sample #: **P42434G-PO-OCH3**

Structure:

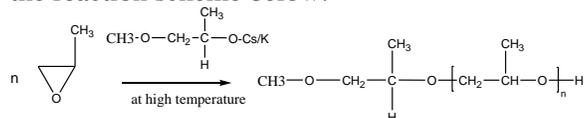


Composition:

| | |
|-------------------|------|
| $M_n \times 10^3$ | PDI |
| 15.0 | 1.09 |

Synthesis Procedure:

Polypropylene oxide is synthesized by anionic polymerization of propylene oxide as illustrated in the reaction scheme below.



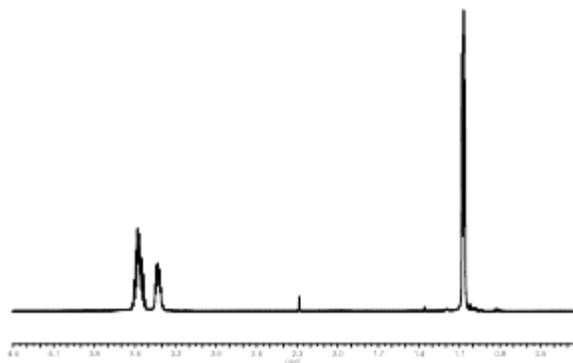
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

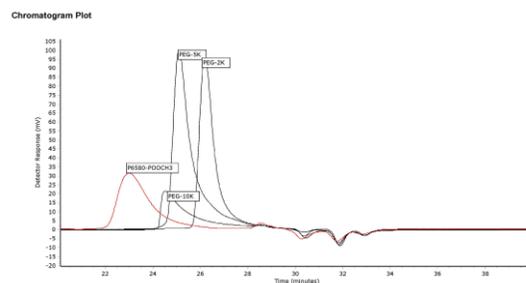
Solubility:

Polymer is soluble in CHCl_3 , methanol, ethanol, THF, and toluene.

HNMR spectrum of the polymer:



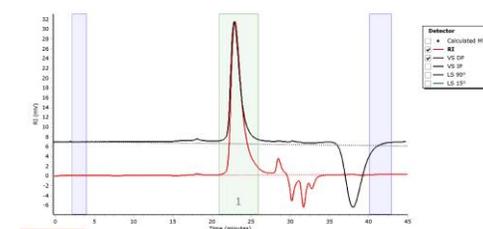
SEC profile of the polymer:



Agilent GPC/SEC Software

P42434G-POOCH3

Chromatogram Plot



| Peak | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mv (g/mol) | PD |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 18111 | 14786 | 16179 | 17358 | 18374 | 17091 | 1.094 |