

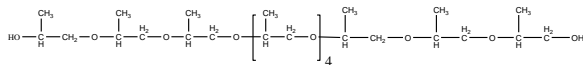
Sample Name:

α,ω - dihydroxy terminated-polypropylene glycol Oligomer

Nanomer

Sample #: **P9846C-PO2OH**

Structure:

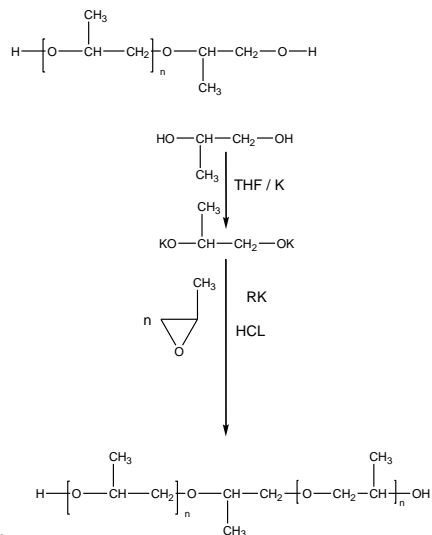


Composition:

Mn x 10 ³	PDI
0.522	1.06

Synthesis Procedure:

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



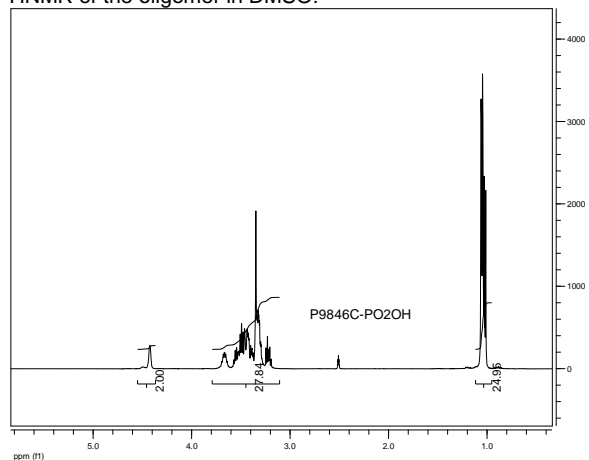
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

Purification:

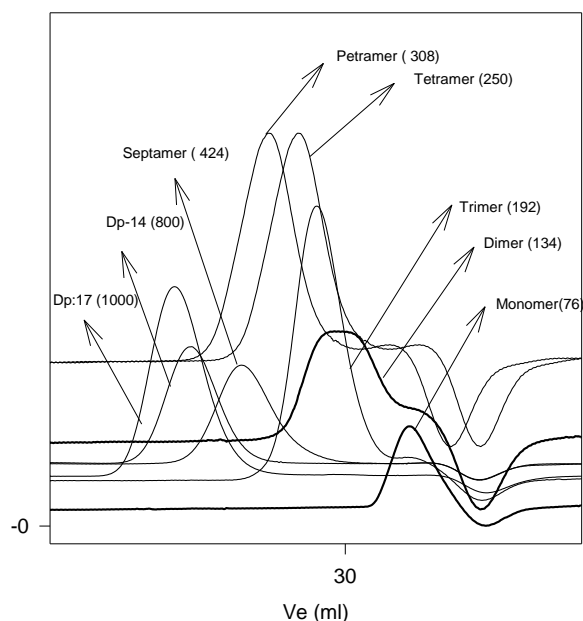
The reaction mixture is filtered to remove the precipitated KCl after which the solvent is removed under reduced pressure.

HNMR of the oligomer in DMSO:



SEC of Homopolymer:

Oligomers of Polypropylene glycol



Size exclusion chromatography of oligomers:

1. Monomer (Mass 76)
2. Dimer (Mn: 134)
3. Trimer: Mn (192)
4. Tetramer (Mn 250)
5. Pentamer (Mn 308)
6. Septamer (Mn 424)
7. Dp=14 (Mn 800)
8. Dp: 17 (Mn 1000)