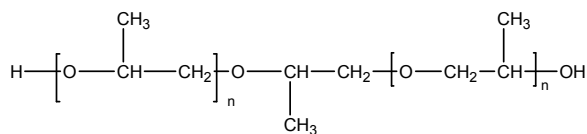


Sample Name:

α,ω - dihydroxy terminated-polypropylene oxide or Poly propylene glycol

Sample #: **P9875-PO2OH**

Structure:

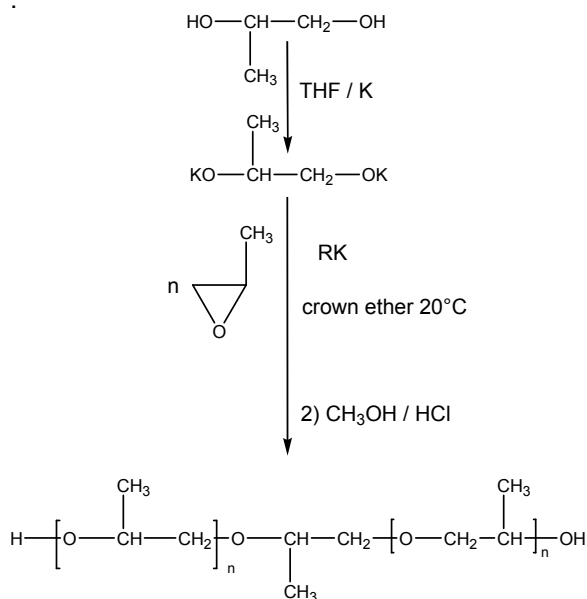


Composition:

$M_n \times 10^3$	PDI
2.1	1.09

Synthesis Procedure:

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



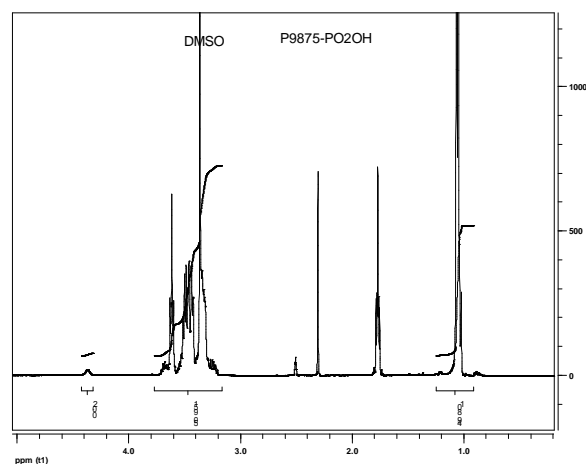
Characterization:

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

Purification:

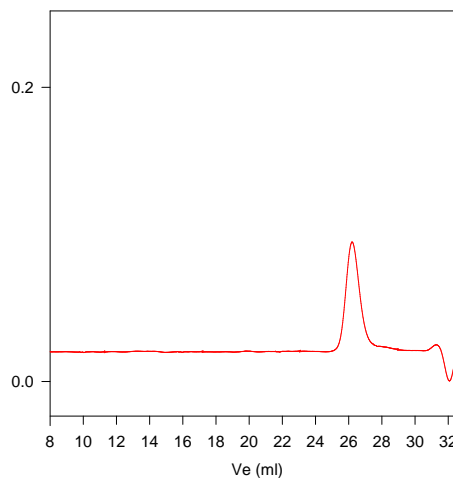
The reaction mixture is filtered to remove the precipitated KCl after which the solvent is removed under reduced pressure. The polymer is then redissolved in iso-octane, and recovered after keeping the solution at -10°C .

^1H NMR of the Polymer:



SEC of Homopolymer:

P9875-PO2OH



Size Exclusion Chromatography of Dihydroxy Terminated Poly(propylene glycol)
 $M_n \approx 2100$, $M_w \approx 2300$, $PI = 1.09$