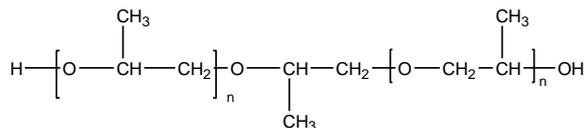


Sample Name:

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

Sample #: **PPO4K2OH**

Structure:

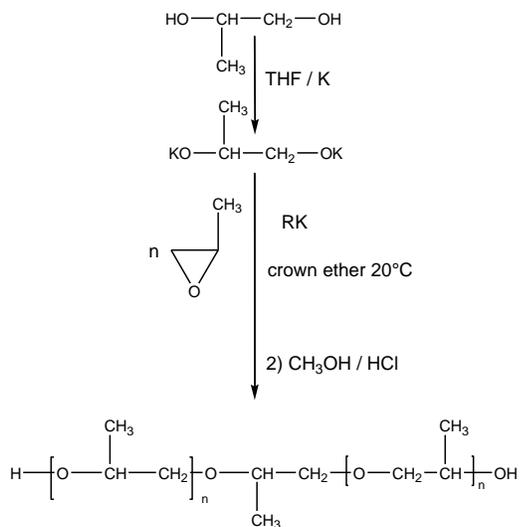


Composition:

| | |
|-------------------|------|
| $M_n \times 10^3$ | PDI |
| 4.1 | 1.05 |

Synthesis Procedure:

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



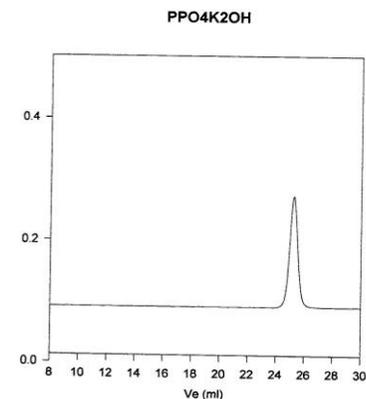
Characterization:

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 .

SEC profile of Homopolymer:



Size Exclusion Chromatography of Dihydroxy Terminated Poly(propylene oxide)
 $M_n=4100$, $M_w=4300$, $PI=1.05$