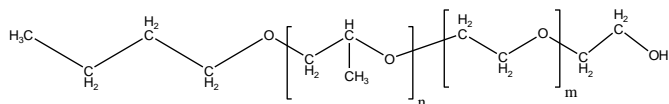


Sample Name:

Poly(Propylene Oxide-b-ethylene oxide)

Sample #: **P1960B-POEO**

Structure:

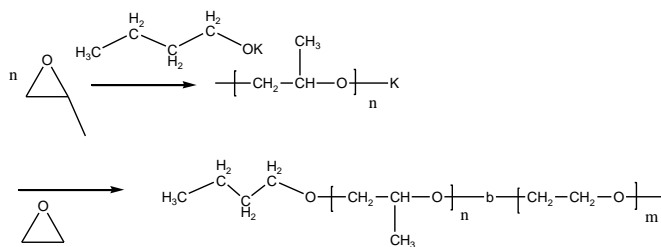


Composition:

Mn x 10 ³ PO-b-EO	PDI
3.5-b-9.0	1.11

Synthesis Procedure:

The following reaction scheme shows how the product was prepared.



Characterization:

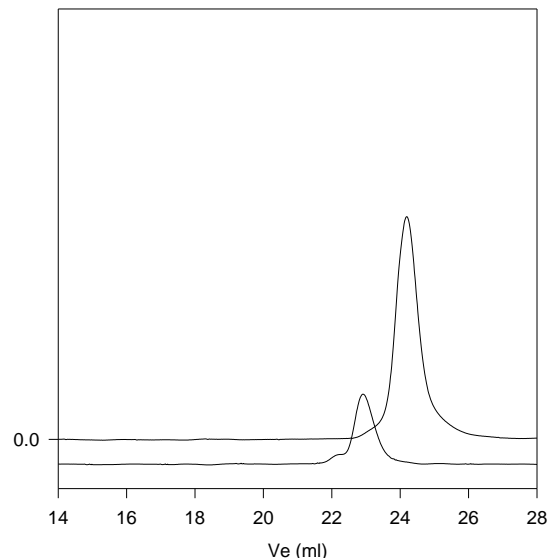
An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of propylene oxide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the propylene oxide protons (CH(CH₃)) at about 1.08 ppm.

Solubility:

Poly(ethylene oxide -b- propylene oxide) is soluble in CHCl₃, THF, methanol, and ethanol. The polymer precipitates from hexane and ether.

SEC elugram of the block copolymer:

P1960_B-POEO



Size exclusion chromatography of poly(Popylene oxide-b-Ethylene Oxide):

—— PPO Block M_n=3500, M_w=3950, PI=1.13

—— Block Copolymer PPO(3500)-b-PEO(9000), PI=1.13