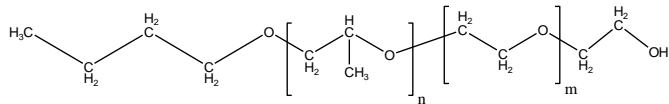


Sample Name:

**Poly(Propylene Oxide-b- Ethylene Oxide)**

Sample #: **P1955B-POEO**

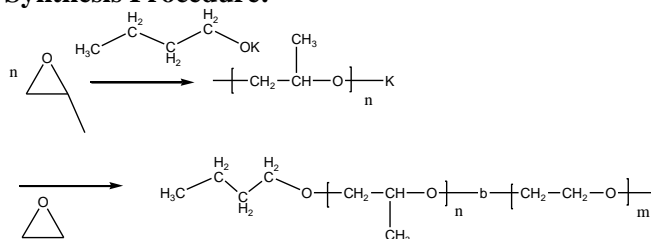
**Structure:**



**Composition:**

|                              |      |
|------------------------------|------|
| $M_n \times 10^3$<br>PO-b-EO | PDI  |
| 3.5-b-6.7                    | 1.12 |

**Synthesis Procedure:**



**Characterization:**

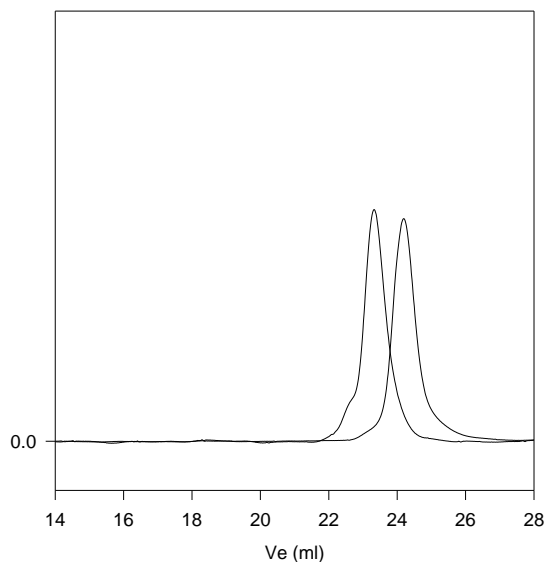
An aliquot of the anionic poly(ethylene oxide) block was terminated before addition of propylene oxide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from  $^1H$ -NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the propylene oxide protons ( $CH(CH_3)$ ) at about 1.08 ppm.

**Solubility:**

Poly(ethylene oxide -b- propylene oxide) is soluble in  $CHCl_3$ , THF, methanol, and ethanol. The polymer precipitates from hexane and ether.

**SEC elugram of the block copolymer:**

**P1955B-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(6700),  $PI=1.12$