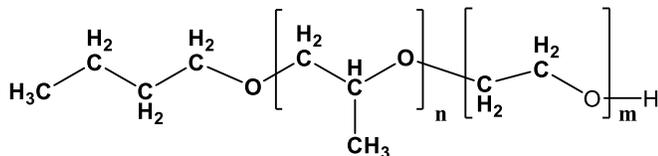


Sample Name:

Poly(propylene oxide-b-ethylene oxide)

Sample #: **P1865-POEO**

Structure:

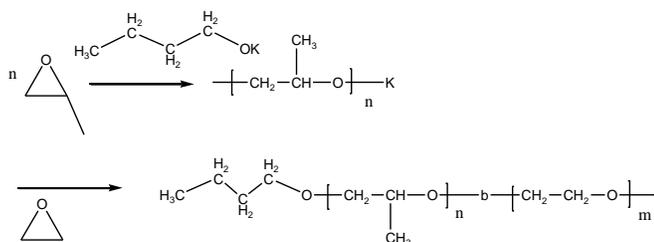


Composition:

$M_n \times 10^3$ PO-b-EO	PDI
0.9-b-8.5	1.04

Synthesis Procedure:

The following reaction scheme shows how the product was prepared.



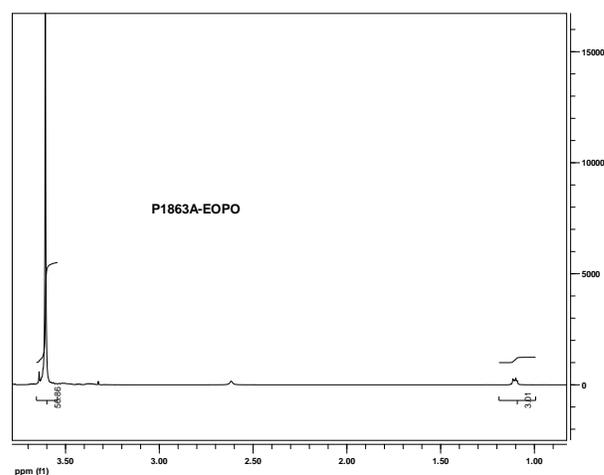
Characterization:

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 $^1\text{H-NMR}$ spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the propylene oxide protons ($\text{CH}(\text{CH}_3)$) at about 1.08 ppm.

Solubility:

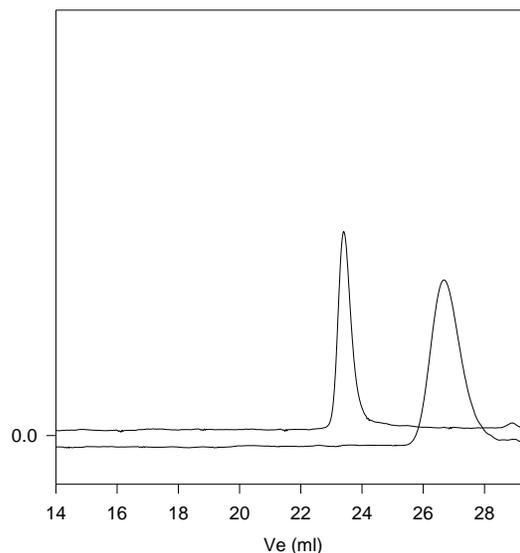
Poly(ethylene oxide -b- propylene oxide) is soluble in CHCl_3 , THF and methanol ethanol. Precipitated pout from hexane and ether.

$^1\text{H-NMR}$ spectrum of the product:



SEC elugram of the block copolymer:

P1865-POEO



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

— PPO Block $M_n=910$, $M_w=980$, $PI=1.08$

— Block Copolymer PPO(910)-b-PEO(8500), $PI=1.05$