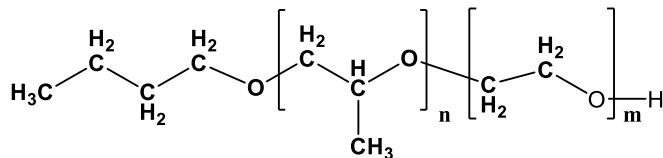


Sample Name:

**Poly(propylene oxide-b-ethylene oxide)**

Sample #: **P1865-POEO**

**Structure:**

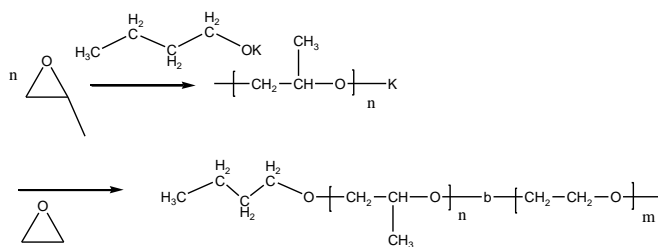


**Composition:**

Mn x 10 <sup>3</sup> PO-b-EO	PDI
0.9-b-8.5	1.04

**Synthesis Procedure:**

The following reaction scheme shows how the product was prepared.



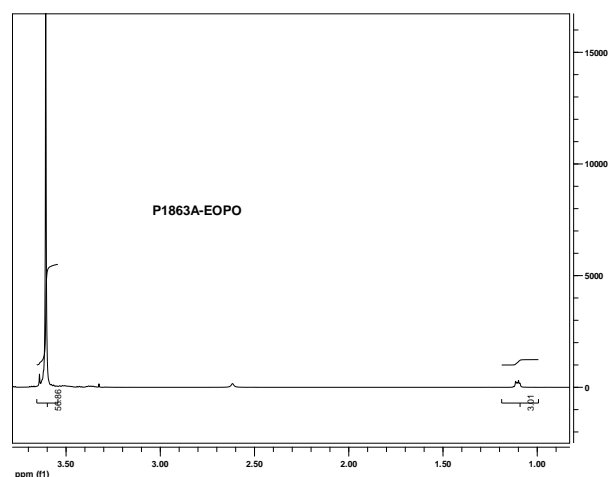
**Characterization:**

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 <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the ethylene oxide protons at about 3.6 ppm with the propylene oxide protons (CH(CH<sub>3</sub>)) at about 1.08 ppm.

**Solubility:**

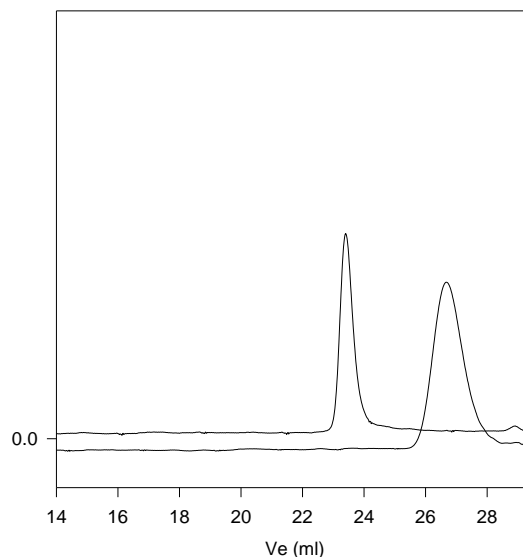
Poly(ethylene oxide -b- propylene oxide) is soluble in CHCl<sub>3</sub>, THF and methanol ethanol. Precipitated pout from hexane and ether.

**<sup>1</sup>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<sub>n</sub>=910, M<sub>w</sub>=980, PI=1.08

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