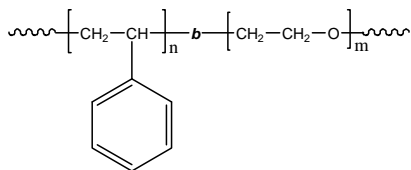


**Sample Name:** Poly(styrene-b-ethylene oxide)

**Sample #:** P18929B-SEO

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
3.5-b-1.5	1.09

**Synthesis Procedure:**

Poly(styrene-b-ethylene oxide) diblock copolymer is prepared by living anionic polymerization.

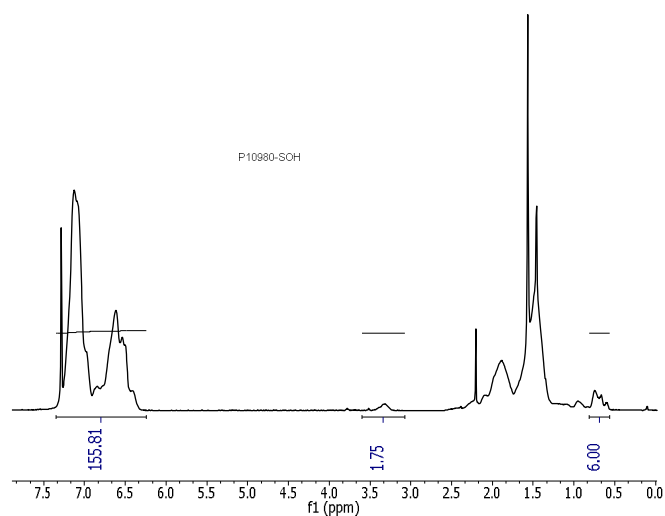
**Characterization:**

By size exclusion chromatography (SEC) and by  $^1\text{H}$ -NMR.

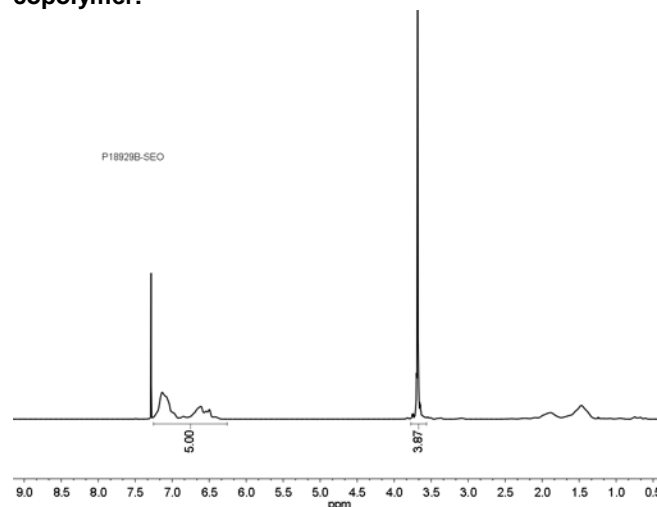
**Solubility:**

The polymer is soluble in THF (at 35 °C),  $\text{CHCl}_3$ , benzene, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

**$^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ ) of the PS-OH homopolymer:**

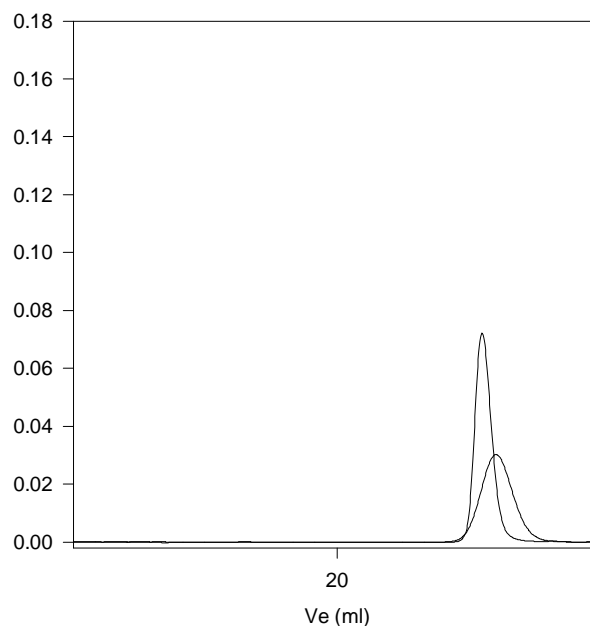


**$^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ ) of the PS-PEO diblock copolymer:**



**SEC elograms of PS and PS-PEO:**

**P18929B-SEO**



Size exclusion chromatography of poly(styrene-b-ethylene oxide)

—— Poly(styrene),  $M_n=3,500$ ,  $M_w=3,900$ ,  $PI=1.11$

—— Block Copolymer PS(3,500)-b-PEO(1,500),  $PI=1.09$