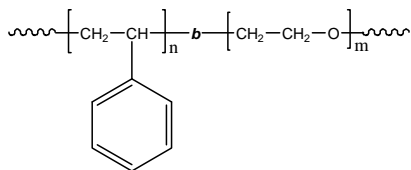


**Sample Name:** Poly(styrene-b-ethylene oxide)

**Sample #:** P18929C-SEO

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
3.5-b-3.2	1.09

**Synthesis Procedure:**

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

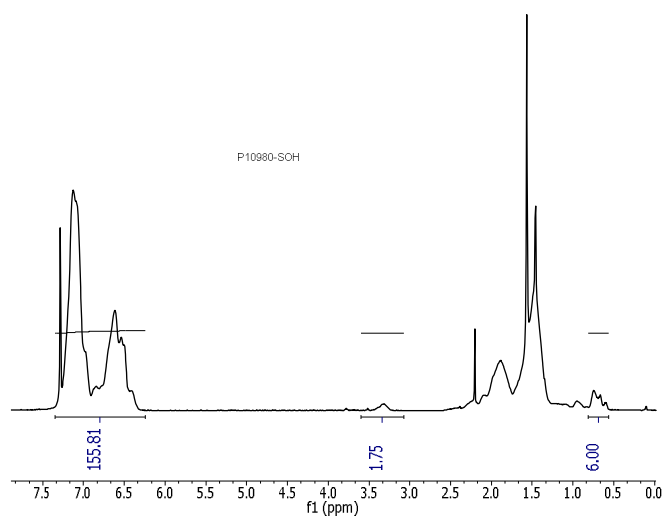
**Characterization:**

By size exclusion chromatography (SEC) and by <sup>1</sup>H-NMR.

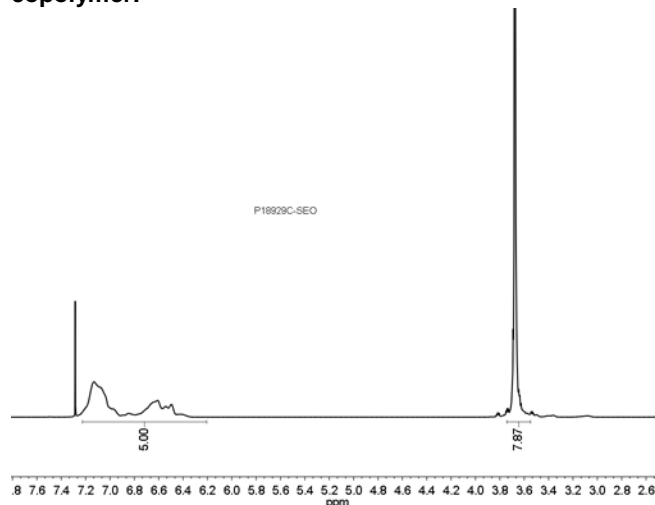
**Solubility:**

The polymer is soluble in THF (at 35 °C), CHCl<sub>3</sub>, benzene, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of the PS-OH homopolymer:**

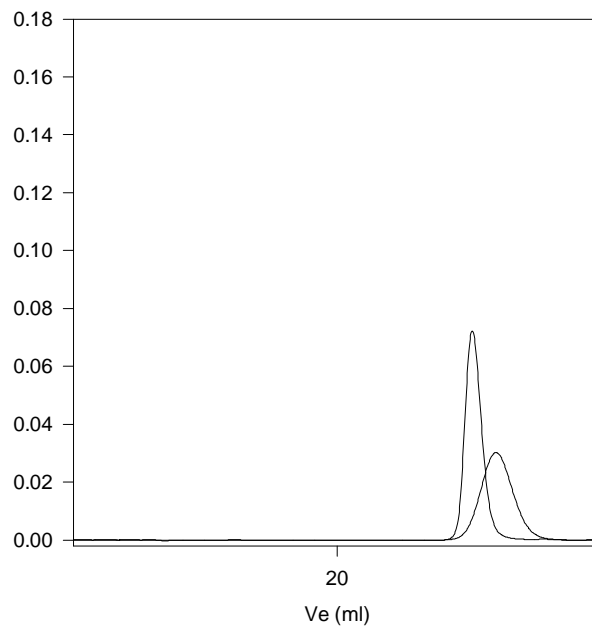


**<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) of the PS-PEO diblock copolymer:**



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

**P18929C-SEO**



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

— Poly(styrene), M<sub>n</sub>=3,500, M<sub>w</sub>=3,900, PI=1.11

— Block Copolymer PS(3,500)-b-PEO(3,200), PI=1.09