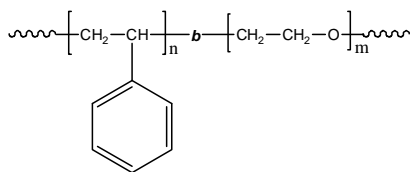


**Sample Name:** Poly(styrene-b-ethylene oxide)

**Sample #:** P18931A-SEO

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
3.2-b-3.1	1.09

**Synthesis procedure:**

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

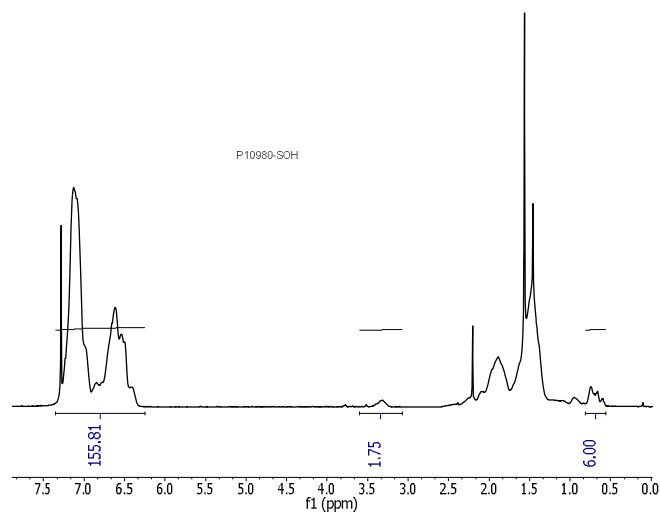
**Characterization:**

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

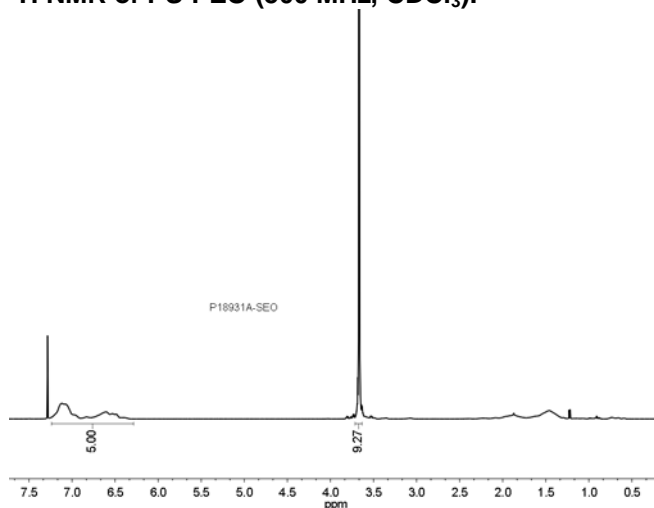
**Solubility:**

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 of PS-OH:**

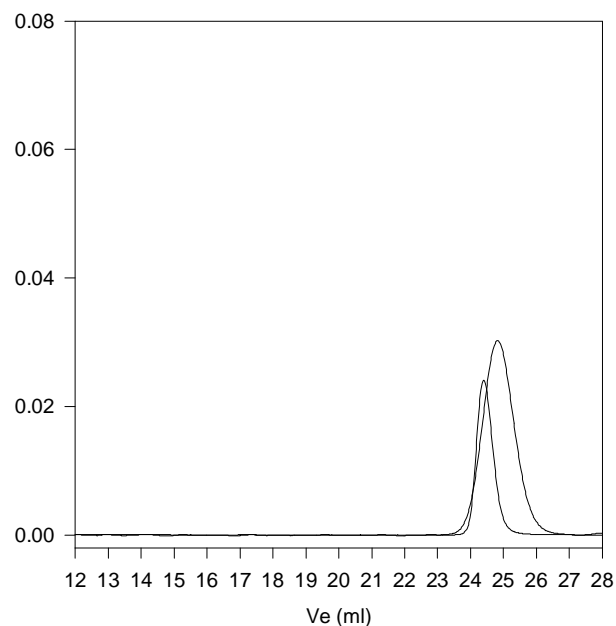


**$^1\text{H}$  NMR of PS-PEO (500 MHz,  $\text{CDCl}_3$ ):**



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

**P18931A-SEO**



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

— Poly(styrene),  $M_n=3200$ ,  $M_w=3400$ ,  $PI=1.06$

— Block Copolymer PSt(3200)-b-PEO(3100),  $PI=1.09$