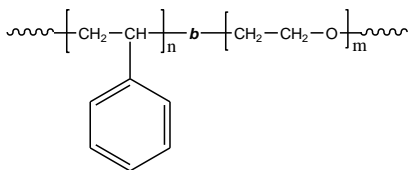


Sample Name: Poly (styrene-b-ethylene oxide)

Sample #: P19245-SEO

Structure:



Composition:

| | |
|----------------------|------|
| Mn x 10 ³ | PDI |
| 3.0-b-3.0 | 1.08 |

Synthesis procedure:

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

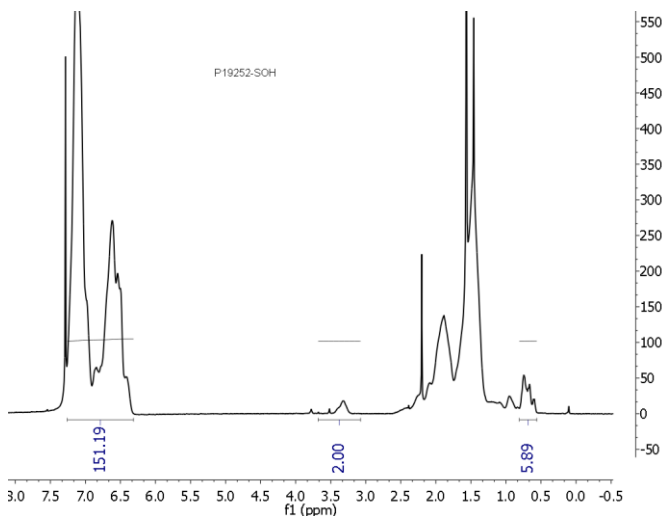
Characterization:

By size exclusion chromatography (SEC) and by ¹H-NMR.

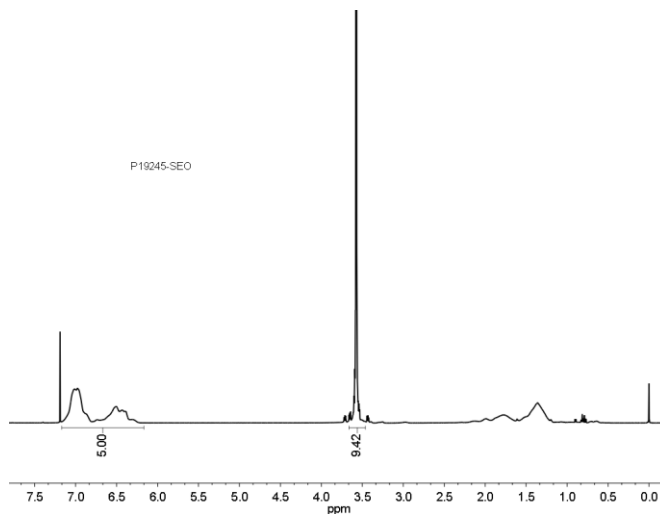
Solubility:

The polymer is soluble in THF (at 35 °C), CHCl₃, benzene, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

¹H NMR of PS-OH:

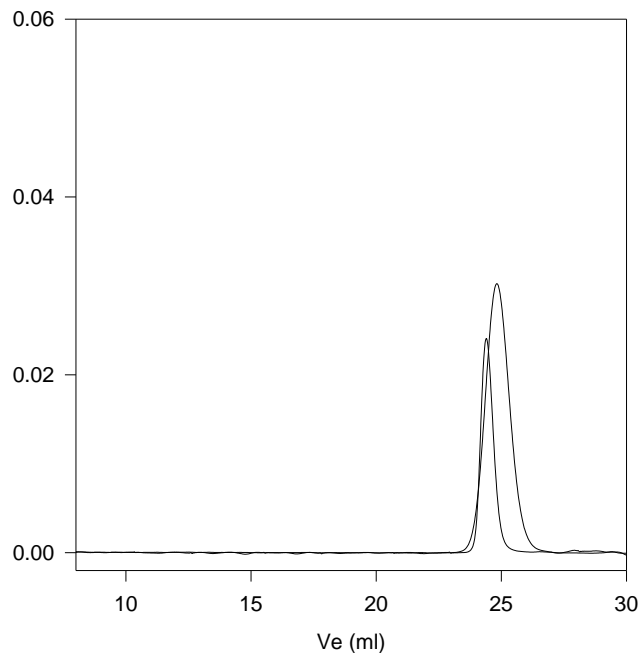


¹H NMR of PS-PEO (500 MHz, CDCl₃):



SEC elugrams of PS and PS-PEO:

P19245-SEO



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

— Poly(styrene), M_n=3,000, M_w=3200, PI=1.06

— Block Copolymer PSt(3,000)-b-PEO(3,000), PI=1.08