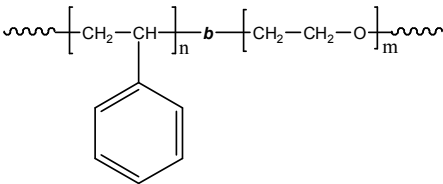


Sample Name: Poly (styrene-b-ethylene oxide)

Sample #: P40233-SEO

Structure:



Composition:

Mn x 10 <sup>3</sup> S-b-EO	PDI
684.0-b-32.0	1.16

Synthesis Procedure:

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

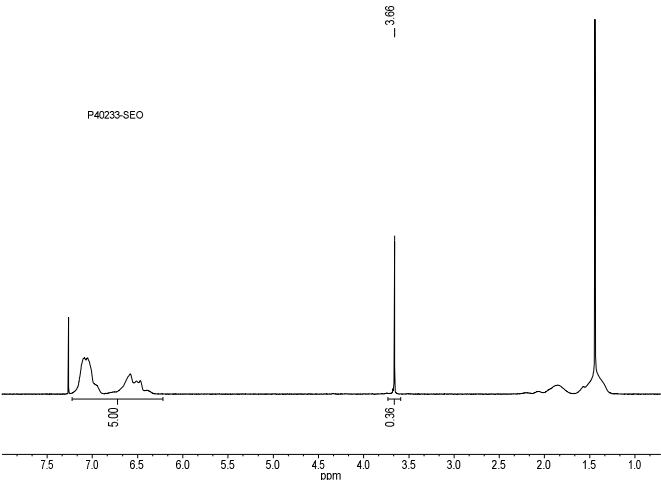
Characterization:

The molecular weight and polydispersity index (PDI) of the block copolymer are characterized by size exclusion chromatography (SEC). The composition of the block copolymer was calculated from <sup>1</sup>H-NMR by comparing the peak area of the phenyl polystyrene protons between 6.4 to 7.2 ppm and the ethylene oxide protons at 3.65 ppm.

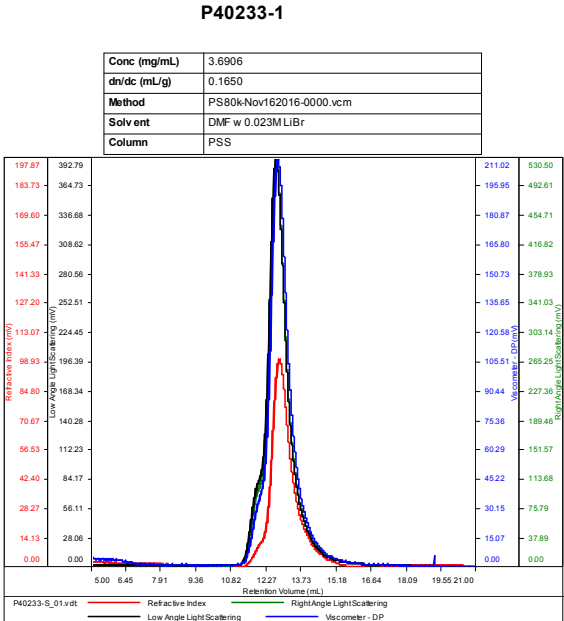
Solubility:

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

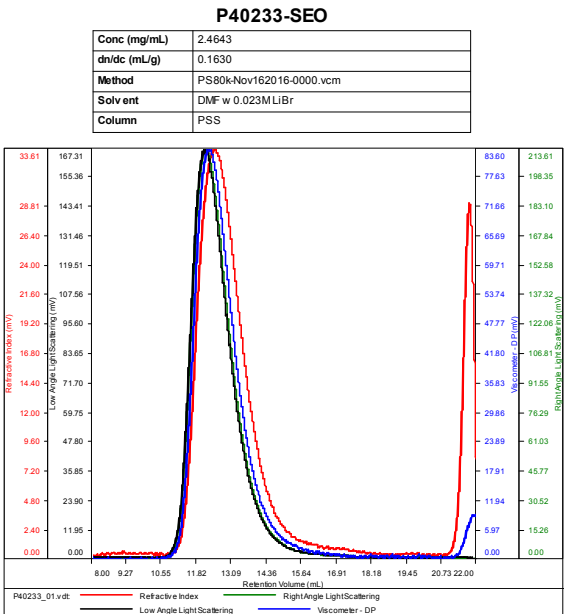
<sup>1</sup>H NMR spectrum of the polymer:



SEC elugram of the block copolymer:



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40233-S_01.vdt	684,017	735,873	736,672	1.076	0.6220



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40233_01.vdt	715,662	830,294	890,656	1.160	0.6687