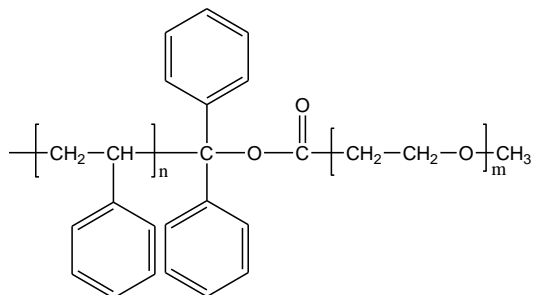


**Sample Name: Poly (styrene-b-ethylene oxide)  
Cleavage**

**Sample #: P8773-SEOCleavable**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> S-b-EO	PDI
19.5-b-7.0	1.07

**Synthesis Procedure:**

The poly(styrene-b-ethylene oxide) cleavable copolymers were synthesized by coupling reaction of  $\omega$ -hydroxy terminated polystyrene with carboxylic acid terminated poly(ethylene glycol) methyl ether.

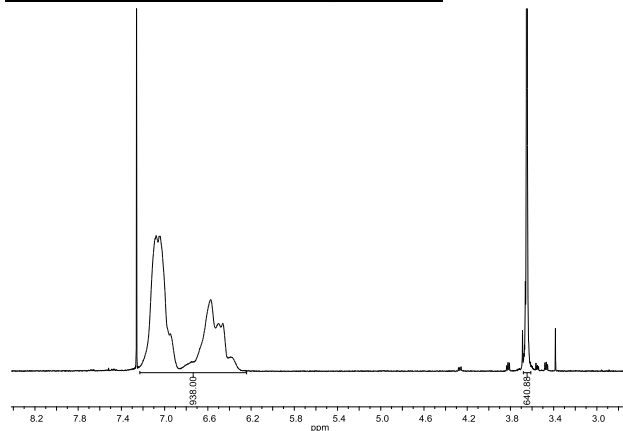
**Characterization:**

The molecular weight and polydispersity index (PDI) of the block copolymer are characterized by size exclusion chromatography (SEC).

**Solubility:**

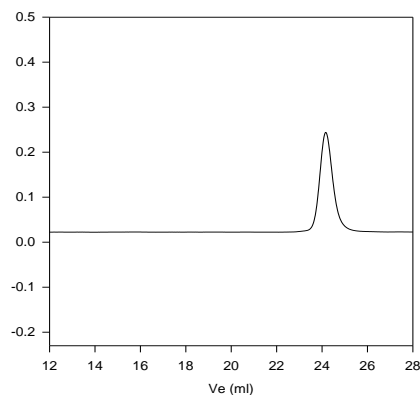
The polymer is soluble in THF, CHCl<sub>3</sub>, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

**<sup>1</sup>H NMR of the diblock copolymer:**



**SEC of the S-OH:**

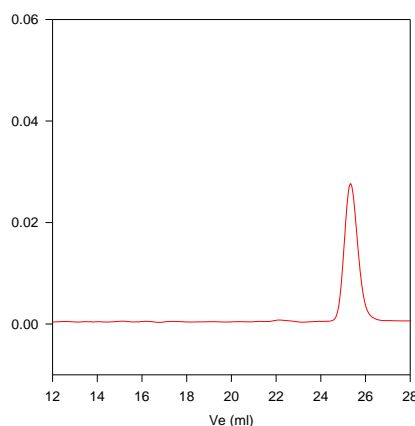
**P8768-SOH**



Size exclusion chromatography of polymer  
— PS, M<sub>n</sub>=19,500, M<sub>w</sub>=20,500, Mw/Mn=1.05

**SEC of the EGOCH3COOH:**

**P6040-EGOCH3COOH**

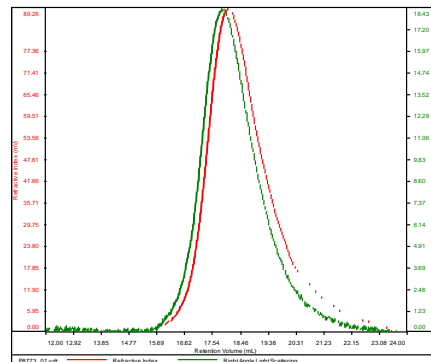


M<sub>n</sub> = 7000, M<sub>w</sub> = 7280, M<sub>w</sub>/M<sub>n</sub> = 1.03

**SEC of the diblock copolymer:**

**P8773**

Cone	0.0103
Divide	0.1350
Solvent	DMF w/ 0.023M LiBr
Flow Rate	0.7000
Method	PS-60K_2018-04-02-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P8773_01.vdt	26,697	28,594	29,533	1.071	0.1343