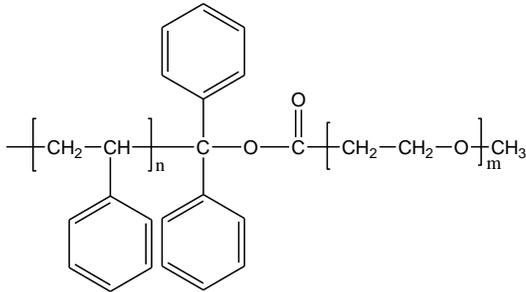


**Sample Name: Poly (styrene-b-ethylene oxide)
Cleavage**

Sample #: P8773-SEOCleavable

Structure:



Composition:

Mn x 10 ³ 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 ω-hydroxy terminated polystyrene with carboxylic acid terminated poly(ethylene glycol) methyl ether.

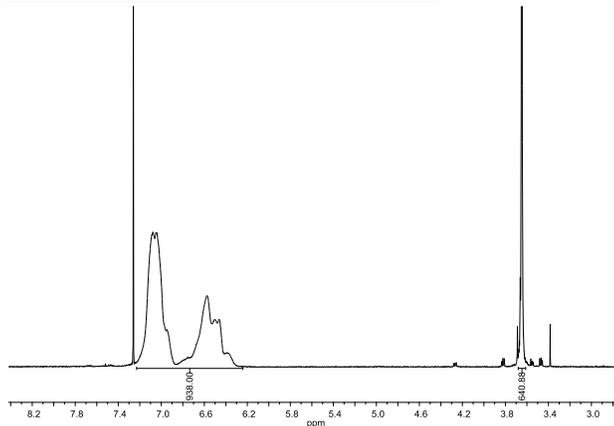
Characterization:

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

Solubility:

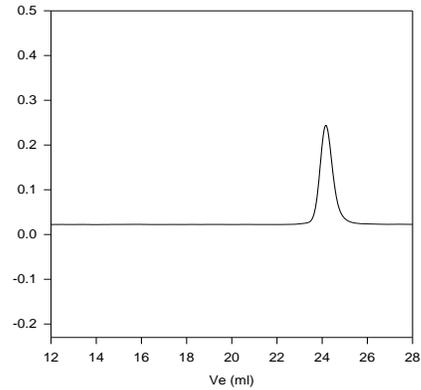
The polymer is soluble in THF, CHCl₃, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.

¹H NMR of the diblock copolymer:



SEC of the S-OH:

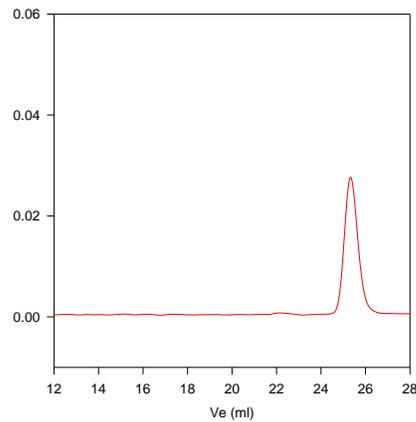
P8768-SOH



Size exclusion chromatography of polymer
— PS, M_n=19,500, M_w=20,500, Mw/Mn=1.05

SEC of the EGOCH3COOH:

P6040-EGOCH3COOH

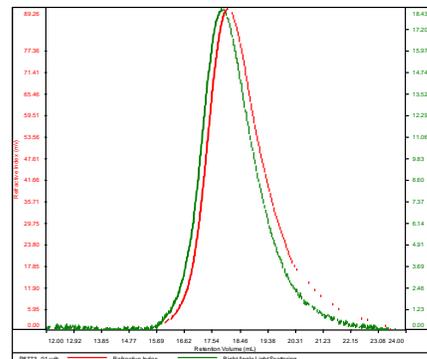


M_n = 7000, M_w = 7280, M_w/M_n = 1.03

SEC of the diblock copolymer:

P8773

Cone	0.0103
Divide	0.1350
Solvent	DMF w/0.023M LiBr
Flow Rate	0.7000
Method	PS-80K_2018-04-02-0000.vcm



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