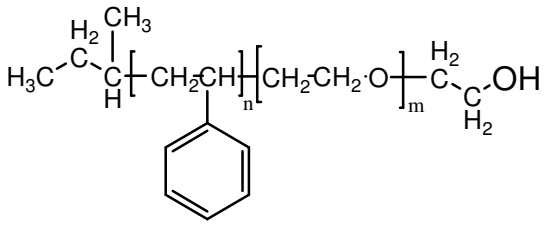
Sample Name: **Poly(styrene-b-ethylene oxide)**

Sample #: **P19652A-SEO**

Structure:



Composition:

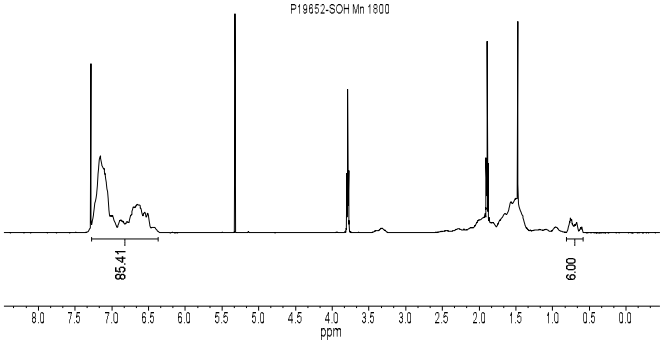
Mn x 10^3	PDI
1.7-b-6.5	1.04

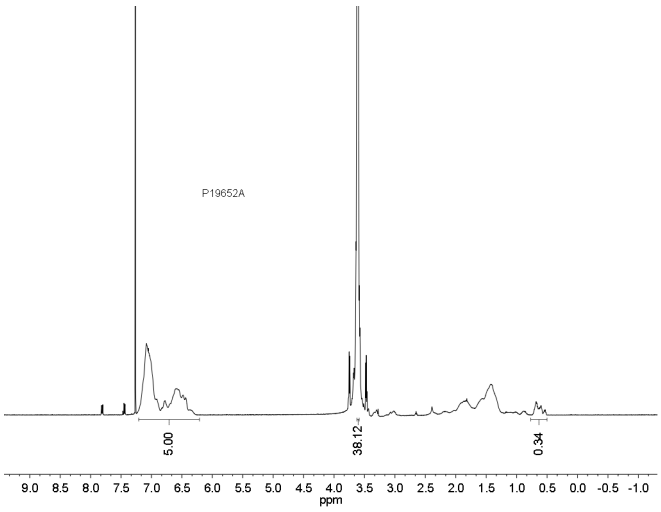
Synthesis Procedure:
Poly(styrene-b-ethylene oxide) diblock copolymer is prepared by living anionic polymerization.

Characterization:
The polymer was characterized by size exclusion chromatography (SEC) and by ^{1}H-NMR

Solubility:
The polymer is soluble in THF (at 35 °C), $CHCl_3$, benzene, toluene, dioxane. Low molecular weight SEO with high contents of the polyethylene oxide block can also be solubilized in methanol and water.
also be solubilized in methanol and water.

^{1}H NMR spectrum of the sample:SOH





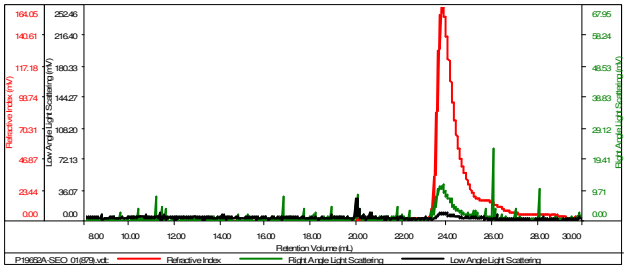
Thermal analysis results
Thermal analysis was done on a TA Q100 differential scanning calorimeter at a heating rate of 20°C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).
The melting temperature (T_m) was taken as a maximum of the endothermic peak.

For PS block: T_g: 85°C	
For PEO block:	
T_g: -63°C	T_m: 61°C

SEC elugram:

Sample ID-P19652-SEO

Concentration (mg/mL)	1.8380
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P19652A-SEO_01(879).vdt	8,172	8,524	8,936	1.043	0.7580