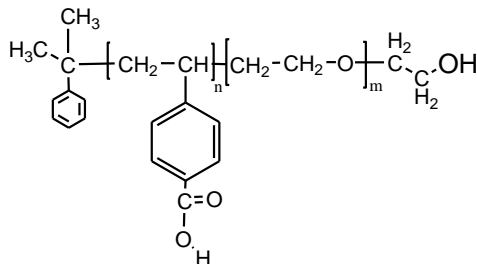


Sample Name:
Poly (4-Vinyl Benzoic acid -b-ethylene oxide)

Sample #: **P40599-4VBABEO**

Structure:



Composition:

Mn x 10 ³ VBA-b-EO	PDI
38.0-b-104.0	1.08

Synthesis Procedure:

Poly (tBu 4 vinyl benzoate -b-ethylene oxide) diblock copolymer is prepared by living anionic polymerization.

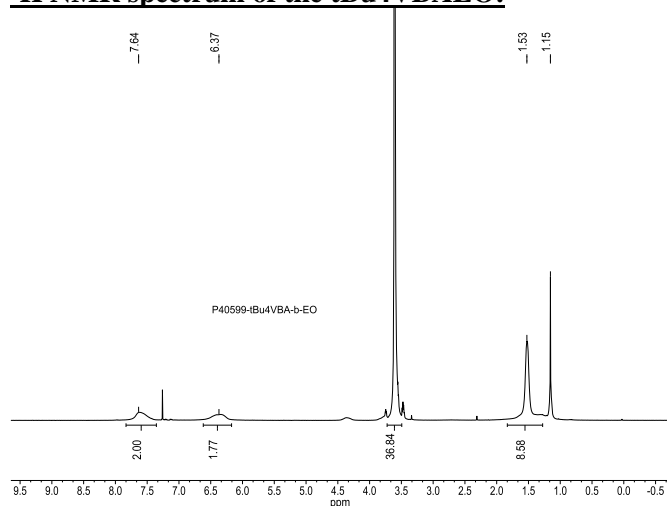
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR.

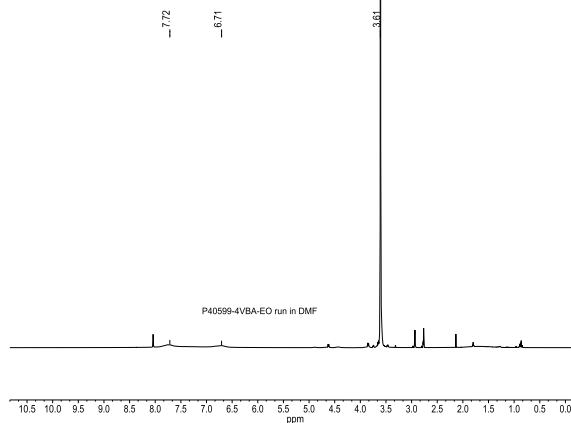
Solubility:

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

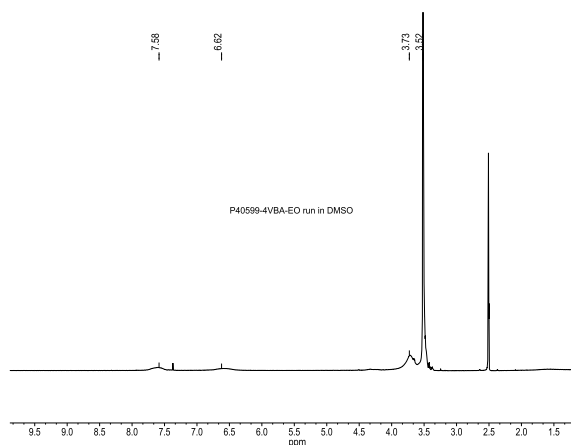
¹H NMR spectrum of the tBu4VBABEO:



¹H NMR spectrum of the 4VBA-EO runs in DMF:



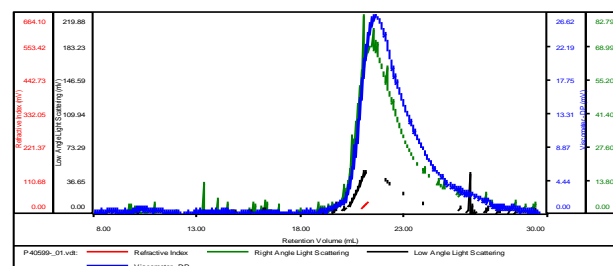
¹H NMR spectrum of the 4VBA-EO runs in DMSO:



SEC elugram of the tBu4VBABEO:

P40599-tBu4VBABEO

Concentration (mg/mL)	1.9955
Sample dn/dc (mL/g)	0.1100
Method File	PS80K-Feb2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40599_01.vdt	156,108	169,542	1.086	0.9912	158,250

Note: After Hydrolysis of tert.butyl ester
Mn 38,000-b-104,000