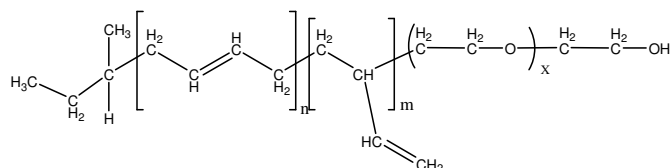


**Sample Name: Poly(butadiene-b-ethylene oxide)**  
*Polybutadiene rich in 1,4 microstructure*

**Sample #: P19941-BdEO**  
*(polybutadiene block rich in 1,4 microstructure)*



### Composition:

Mn x 10 <sup>3</sup> Bd-b-EO	Mw/Mn (PDI)
1.3-b-0.7	1.09

PBd microstructure	1,4 addition >85%
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### Synthesis Procedure:

The polymer was synthesized by anionic process

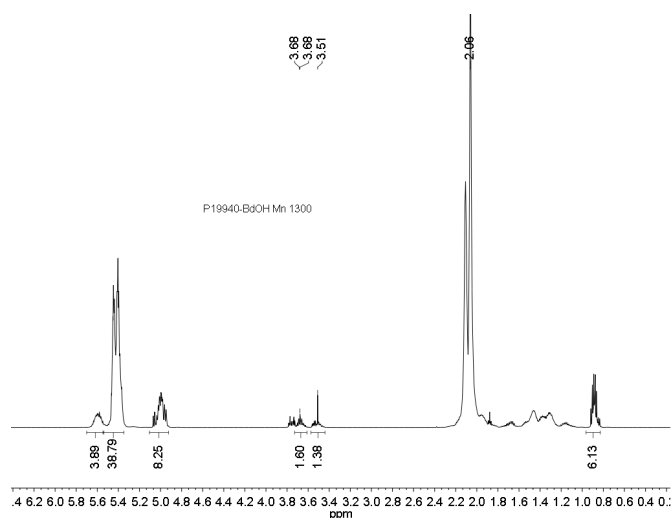
### Characterization:

The polymer was characterized by <sup>1</sup>H NMR and SEC.

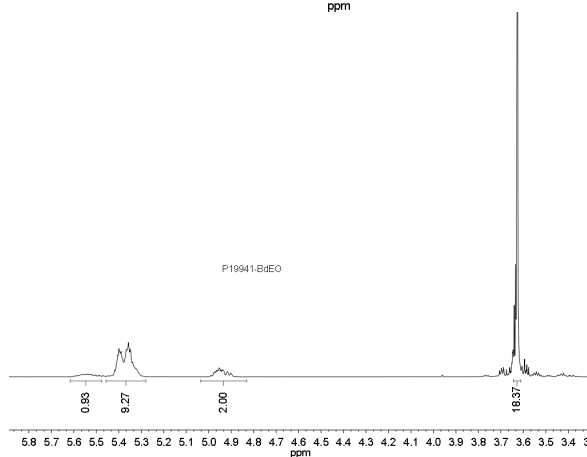
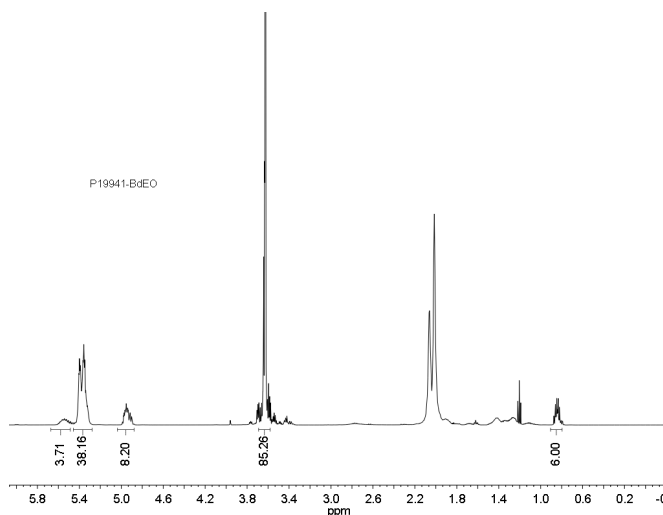
### Solubility:

Poly(butadiene-b-ethylene oxide) is soluble in THF, CHCl<sub>3</sub>, and toluene. The polymer has variable solubility in hexane, methanol, ethanol and water depending on its composition.

### <sup>1</sup>H NMR spectrum of the BdOH used in this polymer

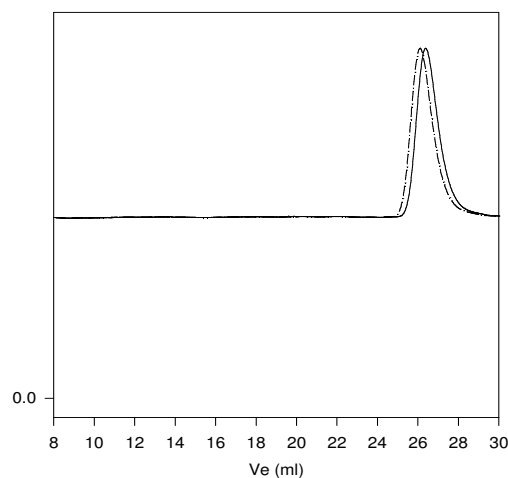


### <sup>1</sup>H NMR spectrum of the Polymer:



### SEC elugram of the block copolymer:

**P19941-BdEO**



Size Exclusion Chromatogram of Hydroxy Terminated Polybutadiene

— Polybutadiene: M<sub>n</sub>=1,300, M<sub>w</sub>=1,400, M<sub>w</sub>/M<sub>n</sub>=1.09  
 BdEO: Mn 1300-b-700 Mw/Mn 1.09