

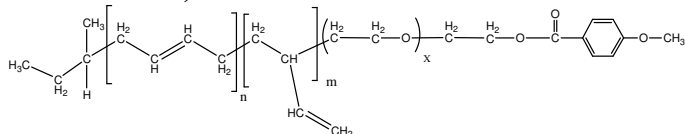
**Sample Name: 4-Methoxy benzoic ester Terminated Poly(butadiene(1,2 addition)-b-ethylene oxide)**

*Poly butadiene rich in 1,2 or 1,4 microstructure*

**Sample #: P14992-BdEOBzOCH3**

*(poly butadiene block rich in 1,2 microstructure)*

**Structure of 1,2-rich microstructure:**



**Composition:**

Mn x 10 <sup>3</sup> Bd-b-EO	Mw/Mn (PDI)	% 1,2 addition Butadiene
2.5-b-1.3	1.04	85

**Synthesis Procedure:**

The polymer was synthesized by anionic process and modification of terminal OH group

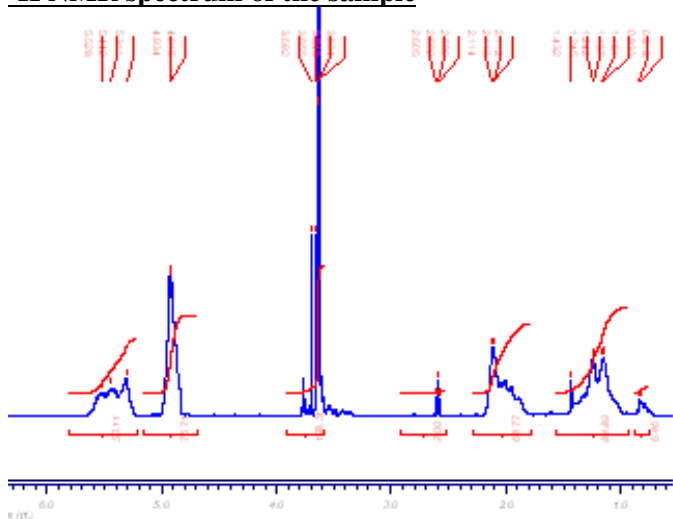
**Characterization:**

The polymer was characterized by size exclusion chromatography (SEC) and <sup>1</sup>HNMR.

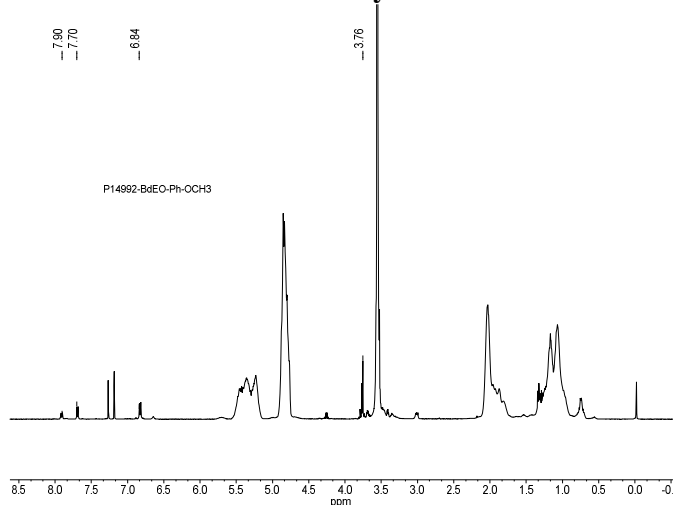
**Solubility:**

The polymer 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 sample**

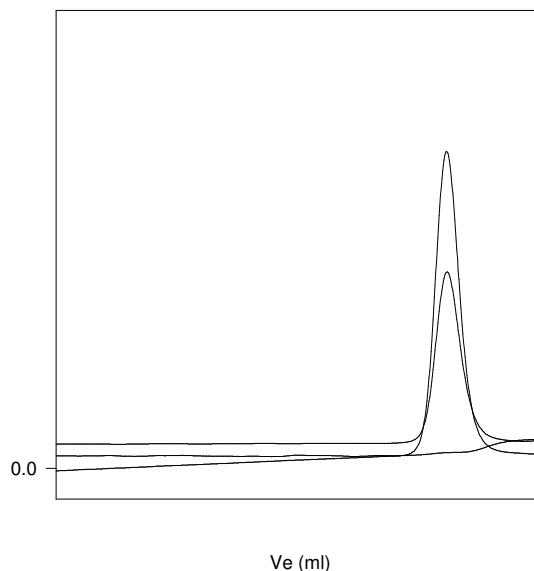


**After reaction with 4-methoxy benzoic acid**



**SEC profile of the block copolymer**

**P14992-BDEO<sub>Bz</sub>**



Size exclusion chromatography of poly(butadiene-b-ethylene oxide):  
Poly BD (1,2 addition) 2500-b-EO 1300 Mw/Mn 1.04

- Sample # BDEO RI and UV response (254nm) before and after reaction with CH<sub>3</sub>O-Ph-COOH
- UV response at 254 nm before reaction with methoxy benzoic acid
- UV response at 254 nm-after reaction with 4methoxy benzoic acid: