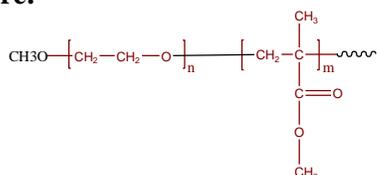


Sample Name:  
**Poly(ethylene oxide-b-methyl methacrylate)**

Sample #: **P43919-EOMMA**

**Structure:**

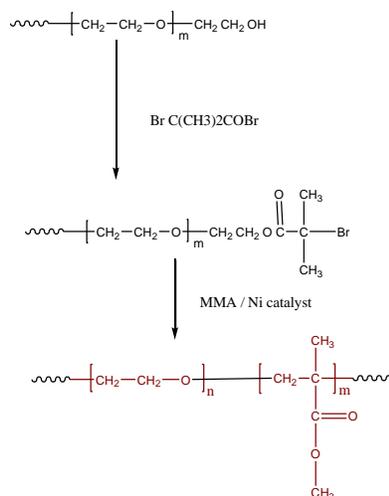


**Composition:**

|                                   |     |
|-----------------------------------|-----|
| Mn x 10 <sup>3</sup><br>PEO-b-MMA | PDI |
| 5.0-b-7.3                         | 1.4 |

**Synthesis Procedure:**

Poly(Ethylene oxide-methyl methacrylate) is prepared as shown in the scheme below:



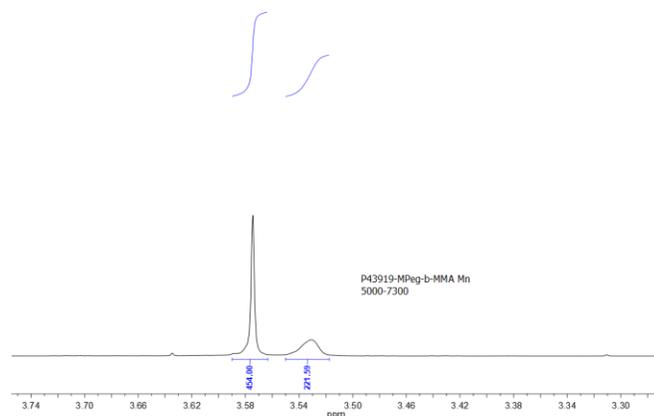
**Characterization:**

Polymer composition was determined by H NMR taking the integration of PEG block at 3.66 ppm and methyl ester of PMMA block at 3.62 ppm. Molecular weights of the first block and the Mw/Mn of the final and the first block was determined by SEC in THF.

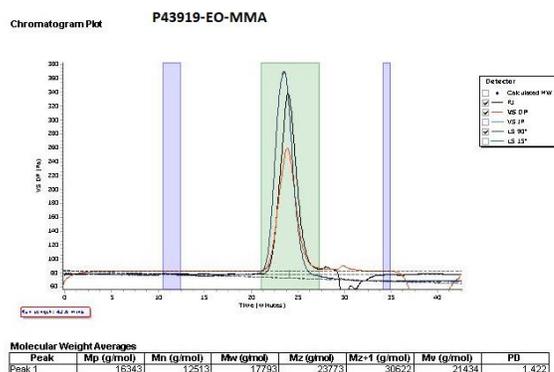
**Solubility:**

Poly(ethylene oxide -b- MMA) is soluble in CHCl<sub>3</sub>, THF, toluene. The polymer precipitated out from hexane.

**<sup>1</sup>H-NMR Spectrum of the block copolymer:**



**SEC elugram of the block copolymer:**



| Molecular Weight Averages |            |            |            |            |              |            |       |
|---------------------------|------------|------------|------------|------------|--------------|------------|-------|
| Peak                      | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz-1 (g/mol) | Mv (g/mol) | PDI   |
| Peak 1                    | 16343      | 12513      | 17793      | 23773      | 30622        | 21434      | 1.422 |

