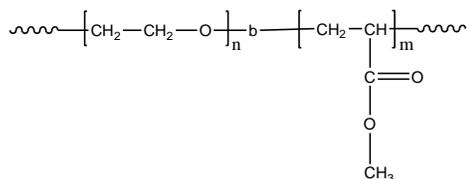


Sample Name: Poly(ethylene oxide -b- methyl acrylate)

Sample #: P7348-EOMA

Structure:

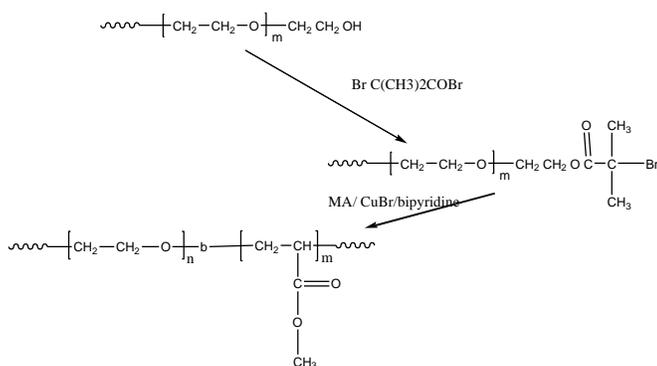


Composition:

Mn x 10 <sup>3</sup> PEO-b-MA	PDI
5.0-0.8	1.15

Synthesis Procedure:

The polymer is prepared as following scheme:



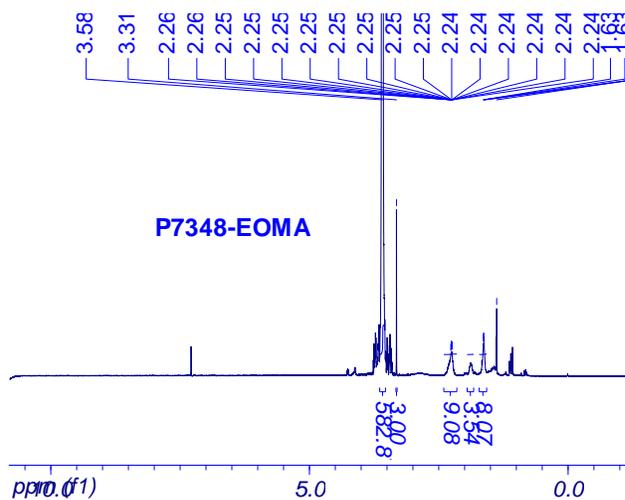
Characterization:

The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the methyl acrylate protons at 2.3 ppm with the peak area of the methoxyl poly(ethylene oxide) protons at 3.31 ppm. Copolymer PDI is determined by SEC.

Solubility:

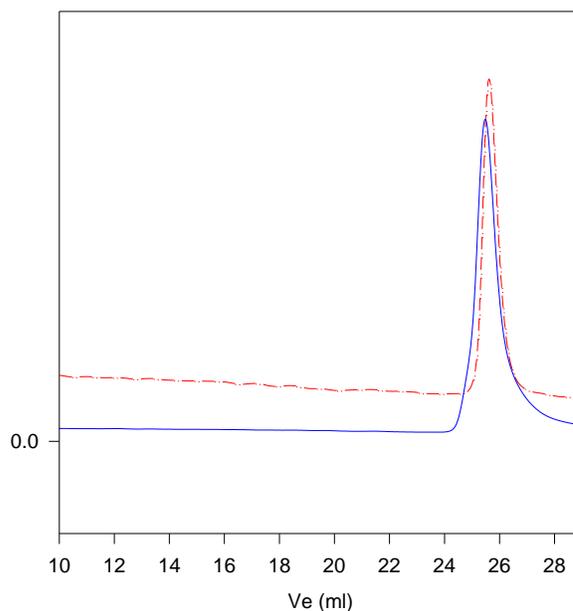
The polymer is soluble in CHCl<sub>3</sub>, methanol, THF and precipitated out from cold hexane or ether.

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



**SEC of the block copolymer:**

**P7348-EOMA**



Size exclusion chromatography of poly(ethylene oxide-b-t-butyl acrylate)

--- PEO, M<sub>n</sub>=5000, M<sub>w</sub>=5200, M<sub>w</sub>/M<sub>n</sub>=1.05

— Poly(ethylene oxide-b-methyl acrylate)

Mn: PEO(5000)-b-MA(800) M<sub>w</sub>/M<sub>n</sub>=1.15