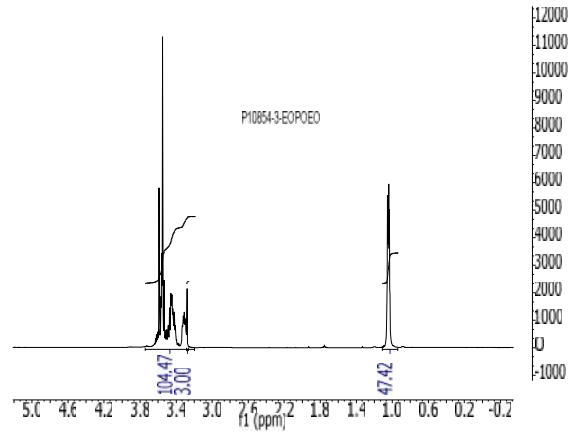
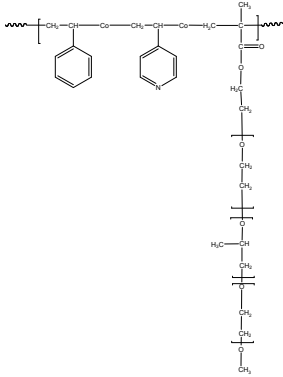


**Sample Name:** Random copolymer of styrene:  
4vinylpyridine and triblock copolymer of EOPEO  
**Sample #:** P14601A-S4VPEOPEOOran

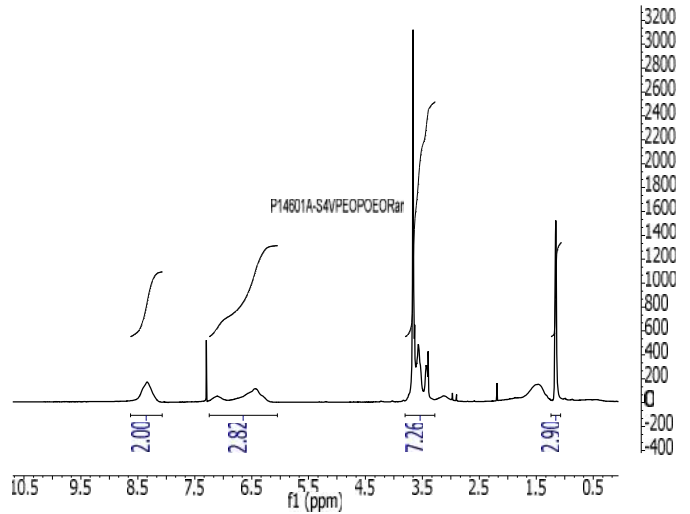
**Structure:**



**HNMR of the random copolymer:**

**Composition:**

Mn × 10 <sup>3</sup>	PDI
580.0	4.5
S: 4VP: ratio	16:84
4VP:EOPEO ratio	51:49
S:4VP:EOPEO ratio After normalization	9.0:46:45
Macromonomer Lot # P10873 EOPEO-MA 0.30-b-1.7-b-0.600 Dp; 7-b-29-b-14	



**Characterization:**

Polymer analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy.

**Solubility:**

The polymer is soluble in acetone, DMF, methanol and precipitates from, ether and hexane.

The esterification of Methacrylic acid to its ester with block copolymer of EPPEO can be quantified using FTIR. Free COOH absorption at 1708 cm<sup>-1</sup> shifted to 1720 cm<sup>-1</sup> after esterification reaction.

**HNMR of EOPEO Macromonomer: EOPEO**

**First Block mPEG**

