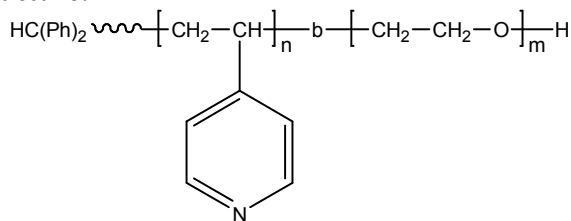


**Sample Name:** Poly(4-vinyl pyridine -b- ethylene oxide)

**Sample #:** P19952B-4VPEO

**Structure:**

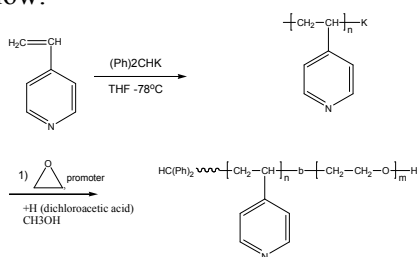


**Composition:**

Mn x 10 <sup>3</sup> P4VP-b-PEO	PDI
4.5-b-2.5	1.4

**Synthesis Procedure:**

Poly(4-vinyl pyridine -b- ethylene oxide) is prepared by living anionic polymerization of ethylene oxide using potassium salt based initiator. The reaction scheme is shown below:



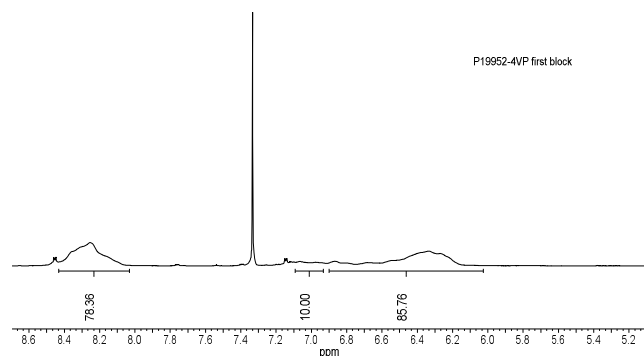
**Characterization:**

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

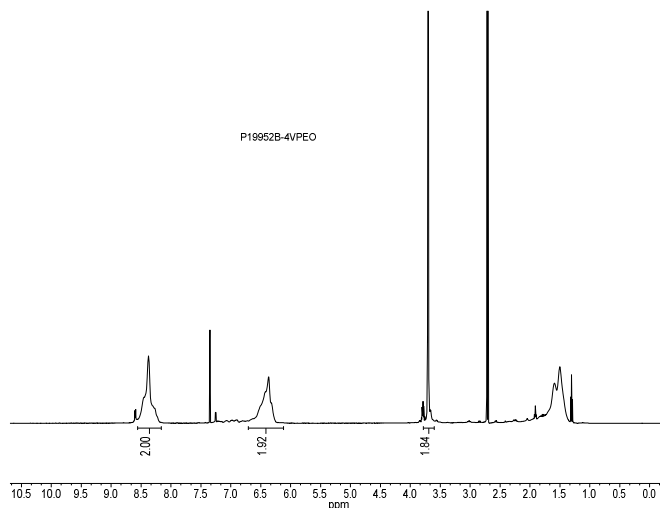
**Solubility:**

Poly(4-vinyl pyridine -b- ethylene oxide) is soluble in ethanol, DMF, chloroform, and THF (hot). Hexanes are its non-solvent.

**<sup>1</sup>H NMR spectrum of the first block**

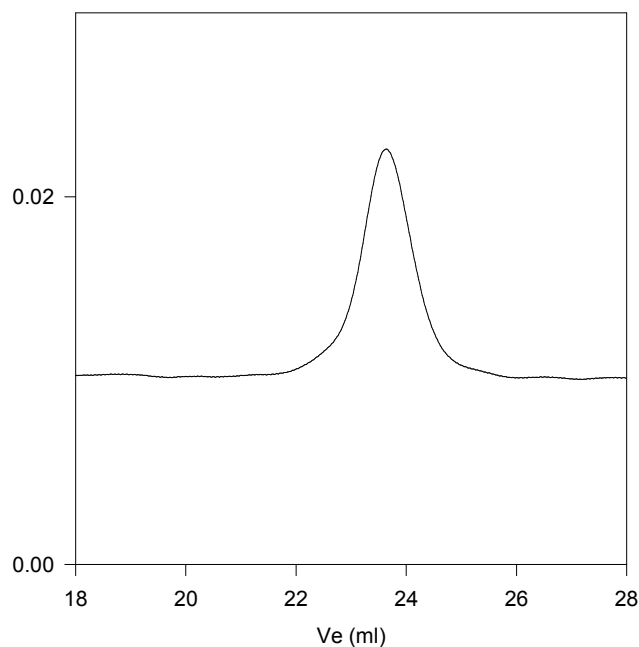


**<sup>1</sup>H NMR Spectrum of the block copolymer:**



**SEC elugram of the polymer:**

**P19952B-4VPEO**



Size exclusion chromatography of

Block Copolymer P4VP(4,500)-b-PEO(2,500), PI= 1.4

Composition for <sup>1</sup>H NMR