Sample Name: Polystyrene-block-poly (2-vinyl

pyridine)

Sample #: **P41217-S2VP** 

#### **Structure:**

**Composition:** 

Mn x 10 <sup>3</sup> PS-b-2VP	PDI		
8.0-b-6.0	1.15		

#### **Synthesis Procedure:**

Polystyrene-b-poly (2-vinyl pyridine) was prepared by living anionic polymerization in THF at -78°C in the presence of LiCl as an additive.

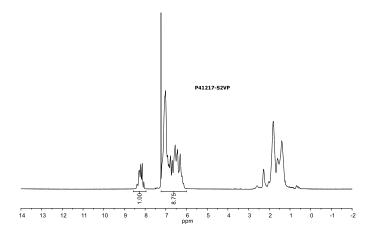
#### **Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR.

### **Solubility:**

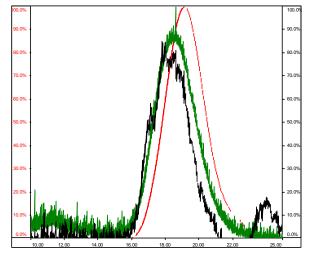
Poly (styrene-b-2 vinylpyridine) is soluble in THF, toluene, and CHCl3. The diblock copolymer can also be solubilized in methanol, ethanol depending on its composition. The polymer readily precipitates from hexanes, ether and water.

## **H-NMR Spectrum of the Sample:**



# SEC elugram of the S block: P41217-S

Conc	5.8114
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm

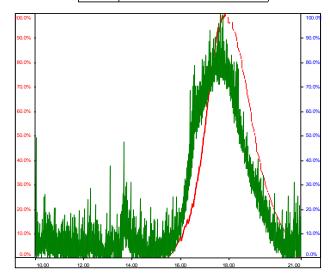


Sample	Mn	Mw	Мр	Mw/Mn	IV
P40217-S_01.vdt	8,068	9,731	8,961	1.206	0.1520

## **SEC elugram of the Sample:**

P41217-S2VP

Conc	0.9735
dn/dc	0.1650
Solv ent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm



Sample	Mn	Mw	Мр	Mw/Mn	IV
P41217-2_01.vdt	13,957	16,034	14,312	1.149	0.4438