

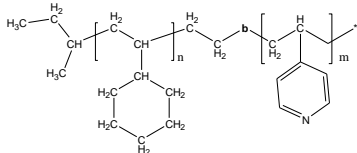
Sample Name:

**Poly Vinyl Cyclohexane-b-4Vinylpyridine**

*Synonym: Poly Cyclohexyl ethylene-b-4Vinylpyridine*

Sample #: **P16169A-VCH4VP**

**Structure:**



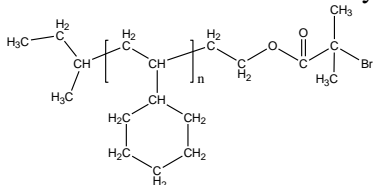
**Composition:**

Mn x 103	PDI
5.3-b-4.3	1.25
Glass transition temperatures:	
T <sub>g1</sub>	132 °C
T <sub>g2</sub>	153 °C

**Synthesis Procedure:**

The polymer was synthesized by combination of anionic polymerization and controlled radical process.

Macro-initiator used for this Synthesis:

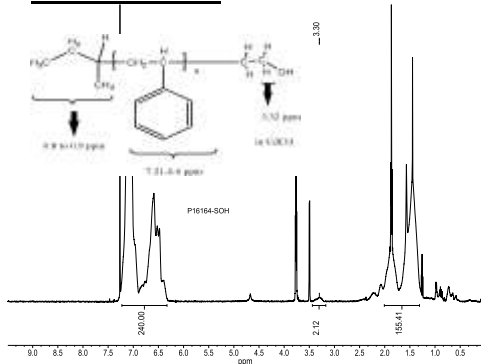


**Characterization:**

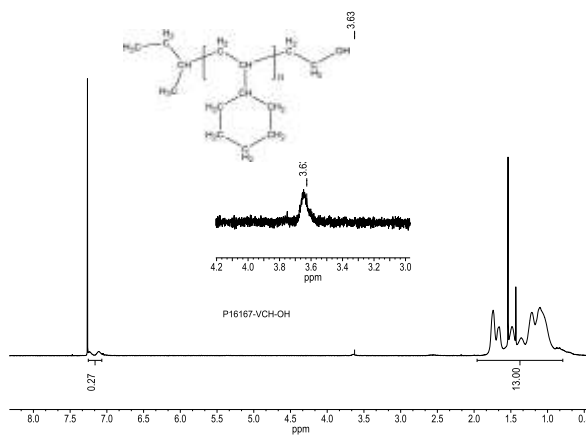
The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR.

Thermal analysis of the sample was done on a TA Q100 differential scanning calorimeter (DSC) at a heating rate of 10°C/min. The glass transition temperature (T<sub>g</sub>) was determined as a midpoint of step change in heat flow curve for the second heating scan.

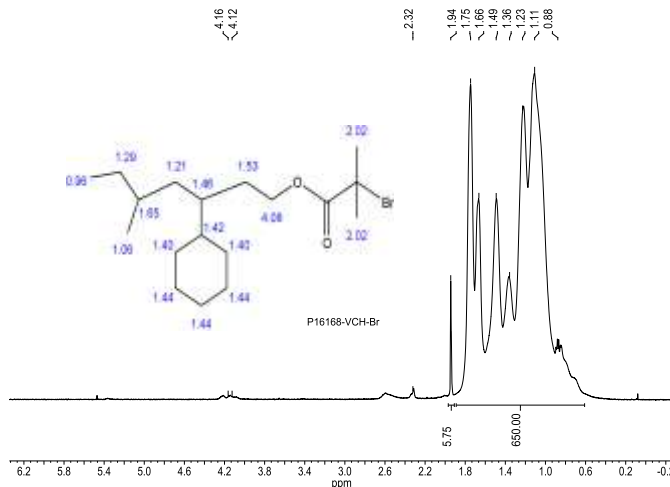
**HNMR spectrum of Polymer used to convert OH terminal to Br:**



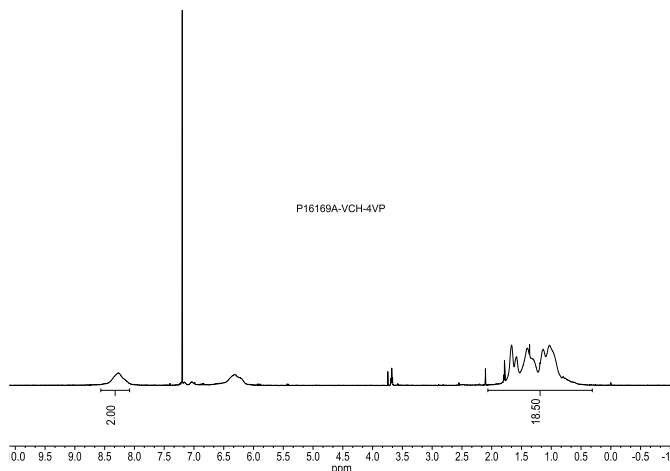
**HNMR spectrum of the Polymer: VCH-OH terminated**



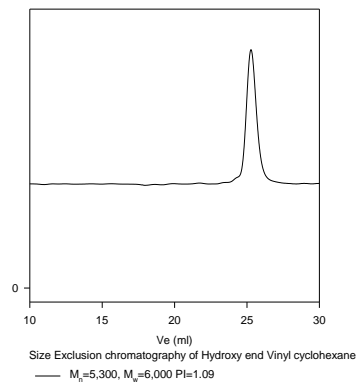
**After converting OH to Br**



**<sup>1</sup>HNMR spectrum of the PVCH-4VP:**



### SEC elugram of the first Block:



### DSC thermogram (2<sup>nd</sup> heating scan, 10°C/min):

