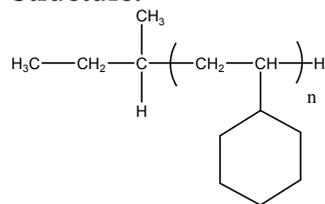


Sample Name: Poly Vinyl Cyclohexane

Sample #: P18054-VCH

Structure:



Composition:

Mn x 10 ³	PDI
100.00	1.05
Tg 126.5 oC	

Synthesis Procedure:

Polystyrene is obtained by living anionic polymerization. Polystyrene was hydrogenated in the presence of Pd based catalyst with Hydrogen pressure of 1200 psi at 140 oC. The Hydrogenation was carried out for three days. Polymer was recovered after removing catalyst by passing through Silica column and precipitation in ethanol. Polymer was finally dried at 100 oC for 24h under vacuum.

Characterization:

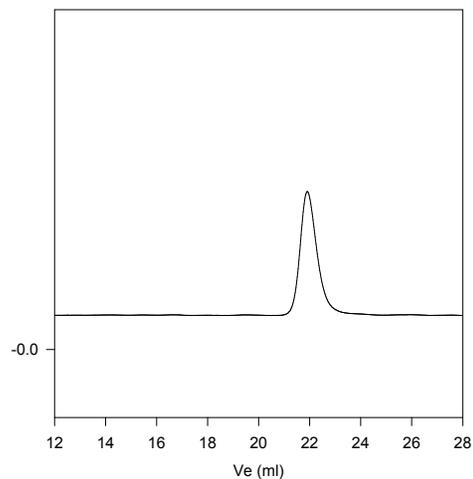
The molecular weight and polydispersity index (PDI) were obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer

P18054-VCH

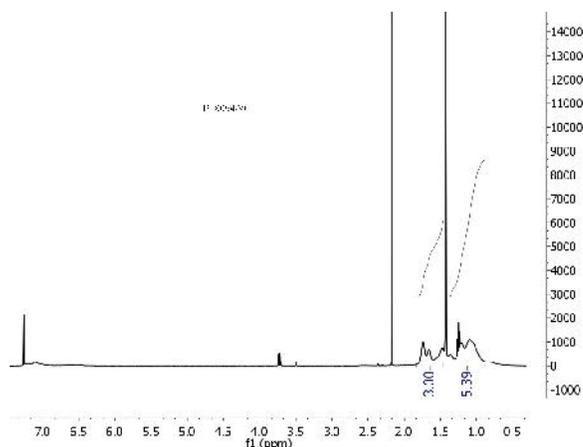


Size exclusion chromatograph of polymer

M_n=100,000 M_w=105,000, PI=1.05

Light scattering data: solution Intrinsic Viscosity in THF at 30 °C: 0.645dl/g
Radius of Gyration: 13.13nm

H NMR of Homopolymer



DSC of Homopolymer

