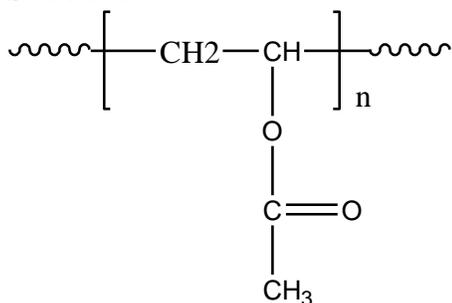


Sample Name: Poly (Vinyl Acetate)

Sample #: P4649B-VAC

Structure:

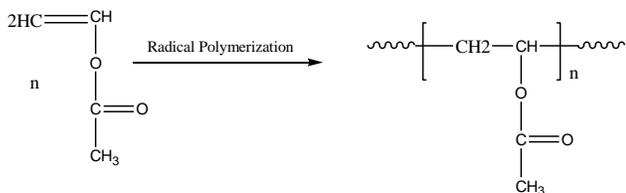


Composition:

$M_n \times 10^3$	PDI
58.0	1.9

Synthesis Procedure:

Poly vinyl acetate is obtained by free radical polymerization using iodo ethyl acetate as chain transfer reagent. Polymerization was carried out in bulk. The polymerization scheme can be illustrated as follows:



Characterization:

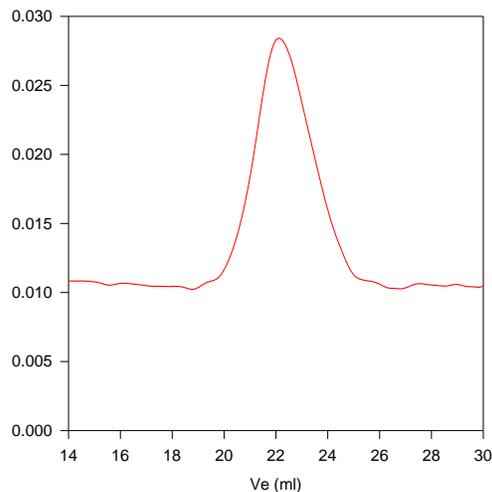
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co. 1H NMR analysis was carried out on Varian instrument at 500MHz.

Solubility:

Polymer is soluble in THF, $CHCl_3$, toluene and dioxane. The polymer precipitates from hexanes and ether.

SEC of Homopolymer:

P4649B-VAc



Size exclusion chromatograph of Poly vinyl acetate:

$M_n=58000$ $M_w=110000$ $PI=1.9$

dn/dc in THF: 0.033 ml/g

Solution Viscosity in THf at 30 °C: 0.688dl/g and Radius of Gyration: 12.35nm
Data from Viscotek triple detectors.