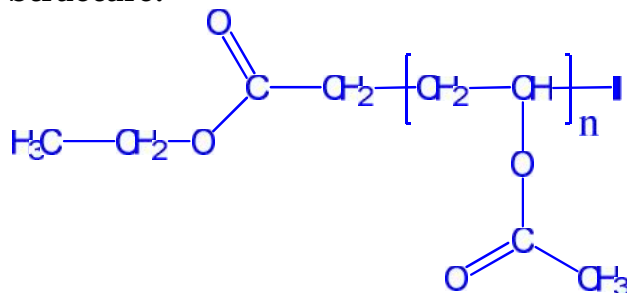


Sample Name: Poly(Vinyl Acetate) oligomers

Sample #: P6674-VAC

Structure:



Composition:

Mn × 10 ³	PDI
0.75	1.22

Synthesis Procedure:

Poly vinyl acetate oligomers are obtained by free radical polymerization using iodo ethyl acetate as chain transfer reagent and AIBN as initiator.

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. The molecular weight of oligomer was calculated by NMR.

Purification of the obtained polymer:

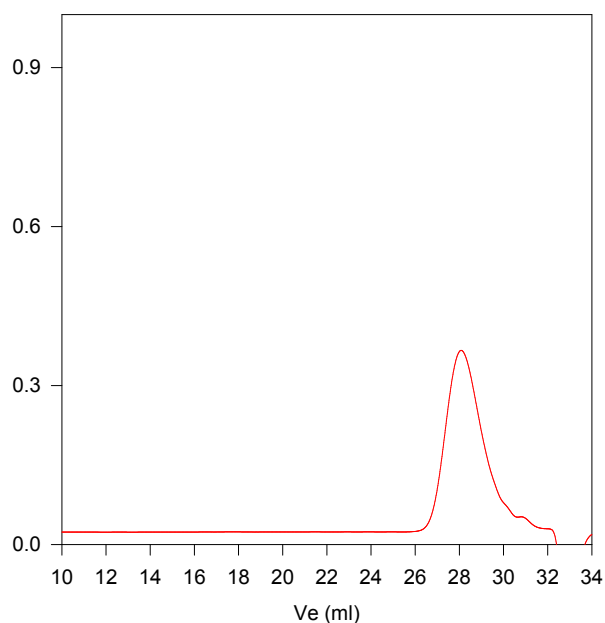
Crude polymer precipitated in cold hexane and then dissolved in dichloromethane wash with water. The obtained polymer solution after concentration dissolved in benzene and pass through a silica filled column. The product was concentrated and precipitated in cold hexane/ether solvents mixture. The product was separated when the bath temperature was still low. A brown color polymer is obtained after drying the product at room temperature for 48h.

Solubility:

Polymer is soluble in THF, CHCl₃, toluene and dioxane. The polymer precipitates from hexanes and ether.

SEC of the Oligomer:

P6674-VAc



Size exclusion chromatograph of Poly vinyl acetate -oligomers

Mn= 820 Mw: 1000 Mw/Mn : 1.22
Mn by HNMR: 750

NMR of the Oligomer:

