

# Product Profile

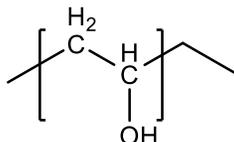
## Identification

**Product Name:** Poly (Vinyl alcohol)

**Product Lot Number:** P44620E-VA

**CAS#** 9002-89-5

**Product Chemical Architecture:**



## Composition:

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)
1.1	1.34
Microstructure of Polymer by <sup>1</sup> H NMR	

**Method of Synthesis.** Poly vinyl alcohol is obtained from the hydrolysis of poly vinyl acetate under alkaline conditions. Poly vinyl acetate is obtained by control free radical polymerization. Polymerization was carried out in bulk using ethyl.

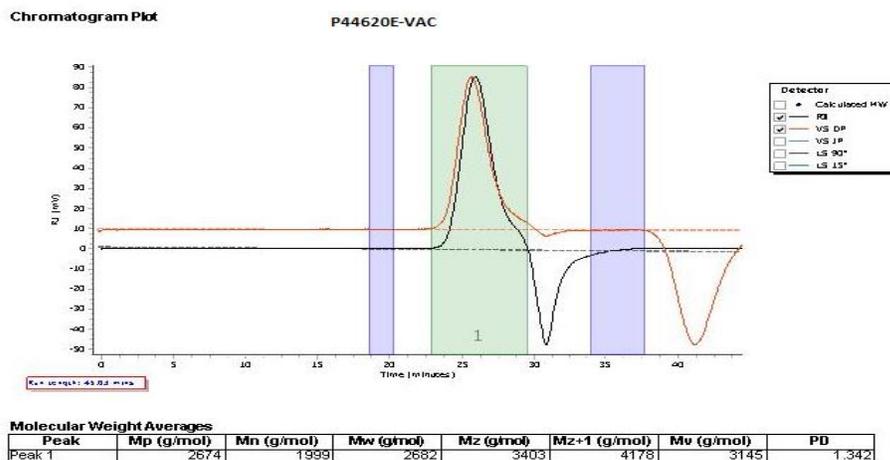
## Solubility in different solvents

THF	<b>X</b>	Water	√
CHCl <sub>3</sub>	<b>X</b>		
Toluene	<b>X</b>		

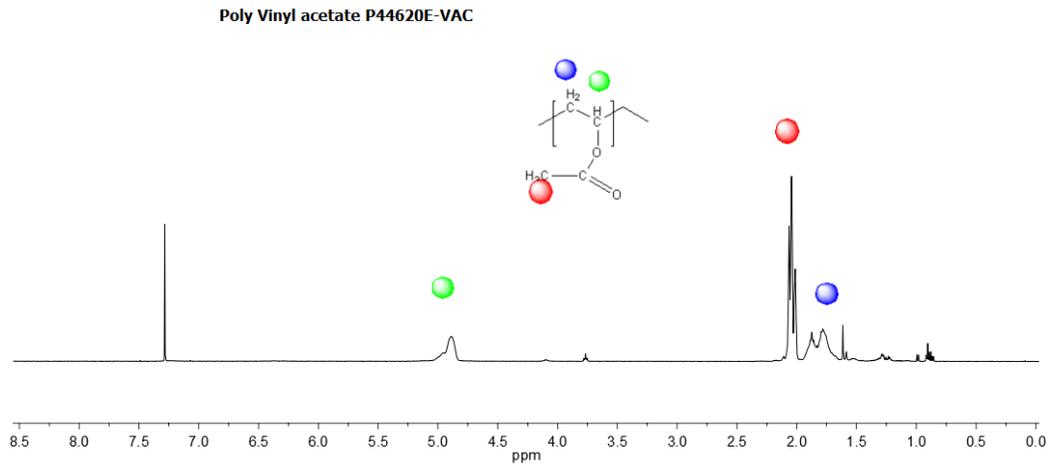
**Purification of Polymer:** By column chromatography. Raft moiety removed by alkaline hydrolysis.

**Validation of Architecture:** GPC carried out in aqueous conditions with H<sub>2</sub>O containing 0.25M NaNO<sub>3</sub> and 0.01M NaH<sub>2</sub>PO<sub>4</sub> buffer pH 7 at room temperature using 2 columns and flow rate 1.0ml/min.

**A. Gel Permeation Chromatography (GPC), SEC- Profile:** Poly Vinyl acetate form. Poly VA Mn: 1,100



**B. NMR (HNMR) of polymer:**  
**Poly Vinyl acetate in CdCl3**



**Poly Vinyl alcohol in D2O**

