

# Product Profile

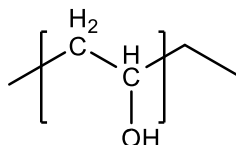
## Identification

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

**Product Lot Number:** P44609D-VA

**CAS#** 9002-89-5

**Product Chemical Architecture:**



## Composition:

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)	dn/dc in Water
1.4	1.2	0.15ml/g
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 free radical polymerization. Polymerization was carried out in bulk.

## Solubility in different solvents

THF	<b>X</b>	Water	✓
CHCl <sub>3</sub>	<b>X</b>	Acetone	<b>X</b>
Toluene	<b>X</b>		

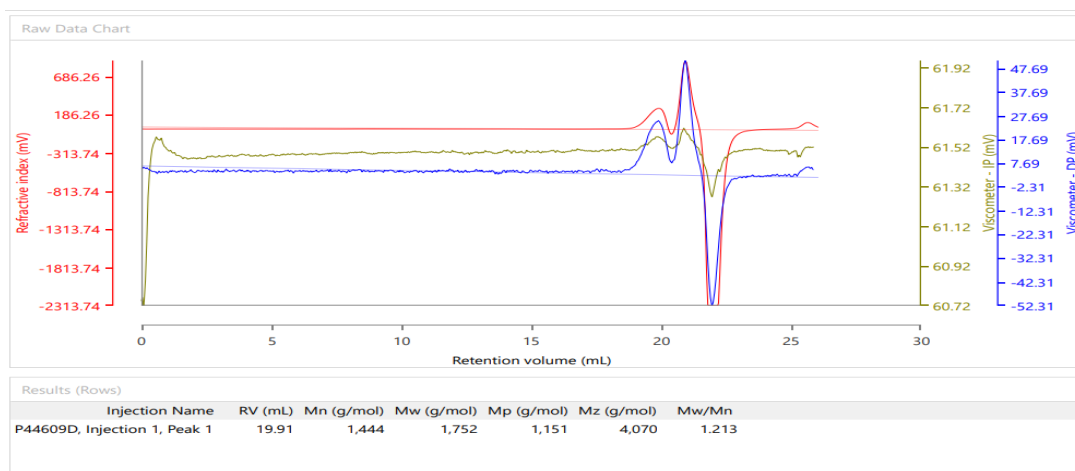
**Purification of Polymer:** By column chromatography.

**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.

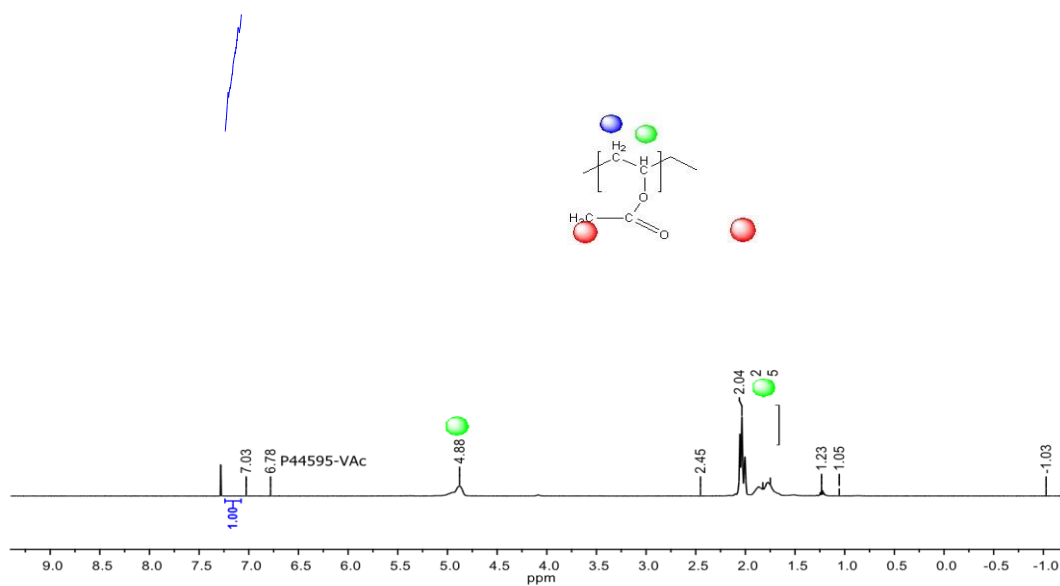
## A. Gel Permeation Chromatography (GPC), SEC- Profile:

Polymer Source

Malvern Panalytical



B. NMR (HNMR) of polymer:  
Poly Vinyl acetate in CdCl<sub>3</sub>



Poly Vinyl alcohol in D<sub>2</sub>O

