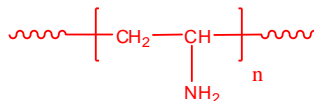


Sample Name: Poly(N-vinyl amine)

Sample #: P44250B-NVAm

Lot#: 44434

Structure:



Composition:

Mn x 10 ³	Mw x 10 ³	PDI
4.7	6.5	1.4

Synthesis Procedure:

Polymer is obtained by free radical polymerization using AIBN as free radical initiator, followed by hydrolysis under basic condition.

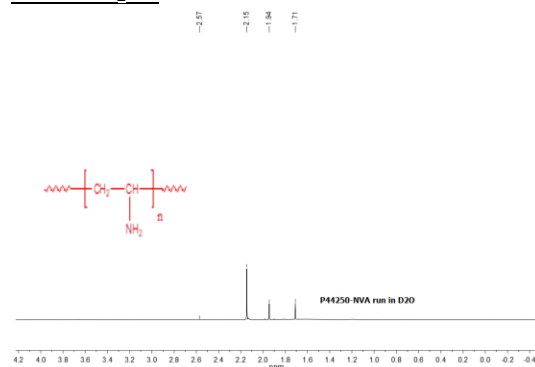
Characterization:

The molecular weight and polydispersity index (PDI) of parent polymer (poly(N-vinyl isobutyramide)) is obtained by size exclusion chromatography in water with 0.1M NaCl and 0.15 wt% of trifluoacetic acid. The columns were calibrated with poly(ethylene glycol) standards.

Solubility:

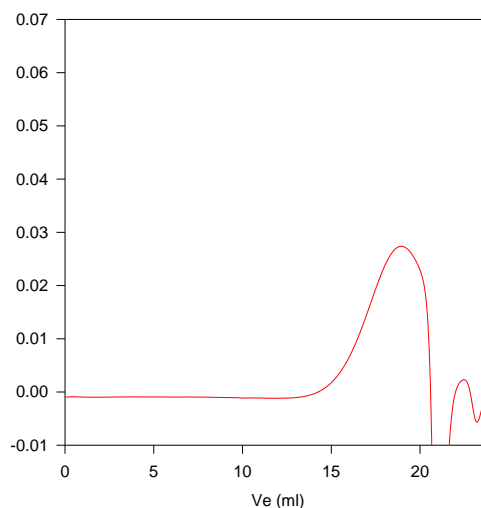
Polymer is soluble in water, and precipitated out from hexane, ether, acetone, even pure methanol.

HNMR spectrum of Poly(N-vinyl amine)
run in D₂O:



SEC profile of Homopolymer used to convert to Poly vinyl amine:

P44250-Vinyl Formamide



Size exclusion chromatography of poly(vinyl formamide)

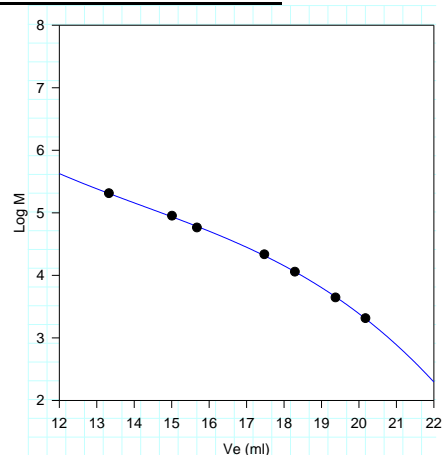
(with respect to poly(ethylene glycol) standards; Eluent: water with 0.1M NaCl)

M_n=7,800; M_w=10,800; M_w/M_n= 1.44

After hydrolysis Poly Vinyl amine Mn 4,700

Poly Vinyl amine Mn: 4,700

Calibration with PEGs:



Calibration of SEC columns with poly(ethylene oxide) standards

Coefficients:

b[0]=15.1316149127

b[1]=-1.6695004384

b[2]=0.1016326483

b[3]=-2.3758487393e-3

r 2=0.9995985048