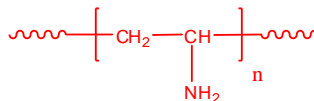


Sample Name: **Poly(N-vinyl amine)**

Sample #: **P44434A-NVAm**

Structure:



Composition:

$M_n \times 10^3$	$M_w \times 10^3$	PDI
2.7	3.9	1.4

Synthesis Procedure:

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

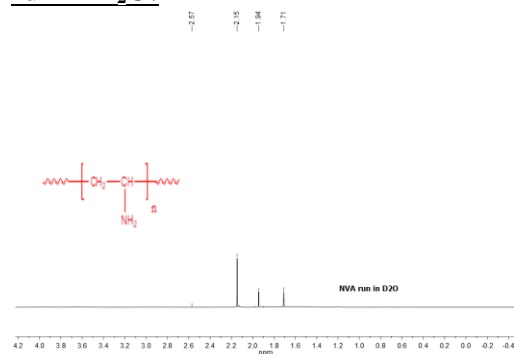
Characterization:

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.

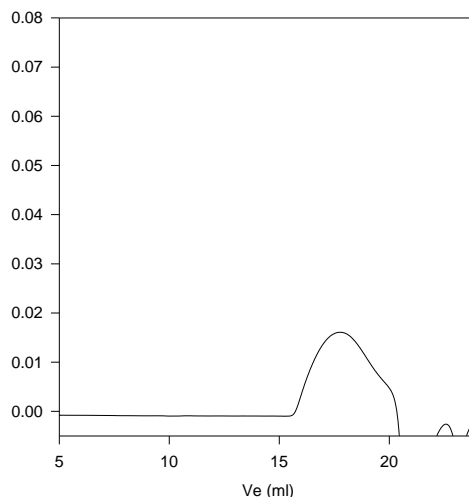
Solubility:

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

HNMR spectrum of Poly(N-vinyl amine)
run in D_2O :



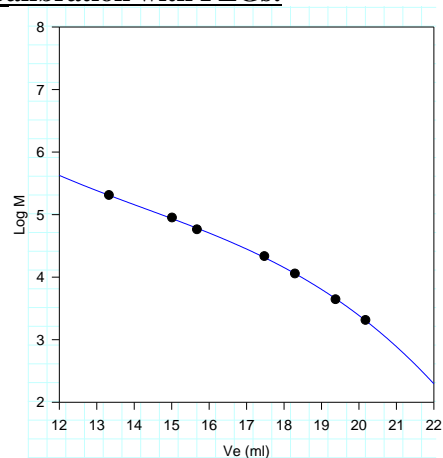
SEC profile of Homopolymer used to convert to Poly vinyl amine:



Size exclusion chromatography of poly(N-vinyl formamide)
(with respect to poly(ethylene glycol) standards; Eluent: water with 0.1M NaCl)
 $M_w=6,500$; $M_n=4,600$; $M_w/M_n=1.4$

Poly Vinyl amine M_n : 2,700

Calibration with PEGs:



Calibration of SEC columns with poly(ethylene oxide) standards

Coefficients:
 $b[0]=15.1316149127$
 $b[1]=-1.6695004384$
 $b[2]=0.1016326483$
 $b[3]=-2.3758487393e-3$
 $r^2=0.9995985048$