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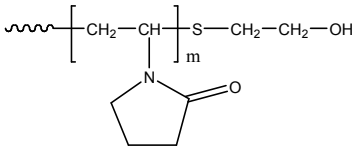
Sample Name:
Hydroxyl terminated poly(N-vinylpyrrolidone)

Sample #: **P4889-NVPOH**

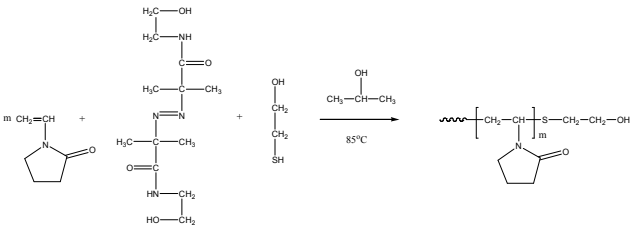
Structure:



Composition:
Mercaptoethanol terminated= 63%mol
Isopropanol terminated= 37%mol

Mn × 10^3	PDI
2.2	1.6

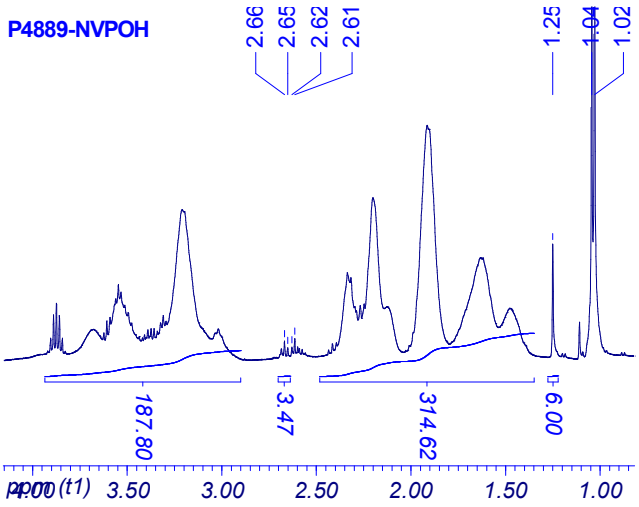
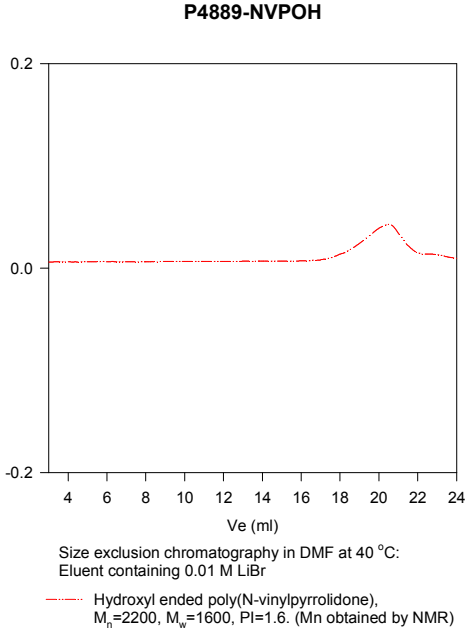
Synthesis Procedure:
Hydroxyl terminated poly(N-vinylpyrrolidone) was prepared by radical polymerization of N-vinylpyrrolidinone using 2,2'-azobis (2-methyl-N-(2-hydroxyethyl)proplonamide as catalyst, isopropyl alcohol as solvent and mercaptoethanol as chain transfer agent. The polymer is obtained by precipitation from cold diethyl ether. The scheme of the reaction is illustrated below:



Characterization:
The molecular weight of the polymer was determined by NMR and polydispersity was determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector in DMF containg 0.01M LiBr salt.

Solubility:
Polymer is soluble in chloroform, THF, DMF, ethanol and water, and precipitate out from hexanes and ether.

H[1] NMR of the polymer:



SEC of Sample: