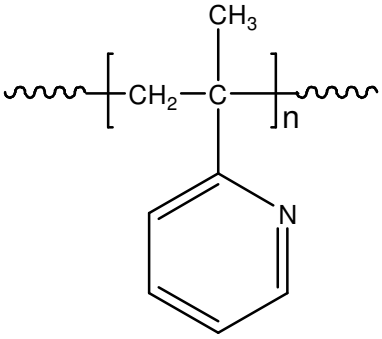
Sample Name: **Poly(2- isopropenyl pyridine)**

Sample #: **P5375-2IPV**

Structure:



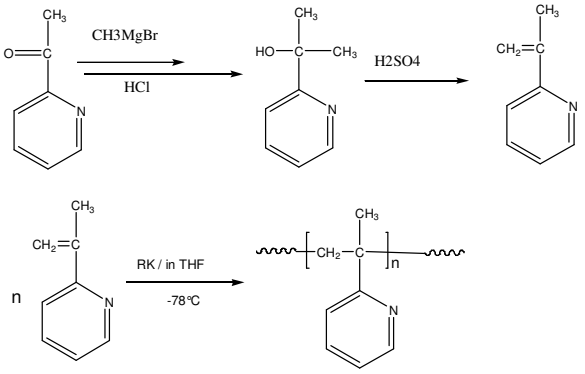
Composition:

Mn x 10^3	PDI
1.4	1.17

Synthesis Procedure:

Poly(2-isopropenyl pyridine) is obtained by living anionic polymerization using potassium based catalyst. Polymerization is carried out in THF at –78 oC. Polymerization reaction is terminated using degassed methanol. 2-Isopropenyl pyridine was synthesized from 2-acetyl pyridine.

The reaction scheme is illustrated as follows:



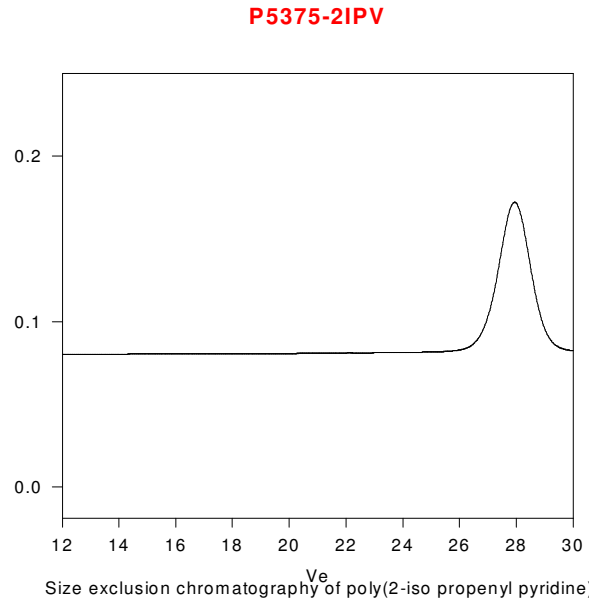
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Poly 2-isopropenyl pyridine is soluble in DMF, THF, toluene, methanol, ethanol and $CHCl_3$. It precipitates from water and hexanes, ether.

SEC of Sample :



Size exclusion chromatography of poly(2-iso propenyl pyridine) in THF

M_n=1400, M_w=1650, PI=1.17