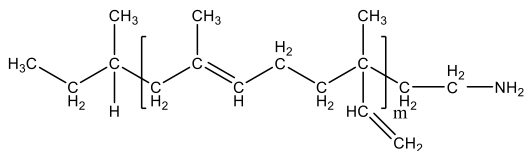


**Sample Name:**

**Poly(1,4-isoprene),  $\omega$ -Amino-terminated**

**Sample #: P44208A-IPNH2**

**Structure:**



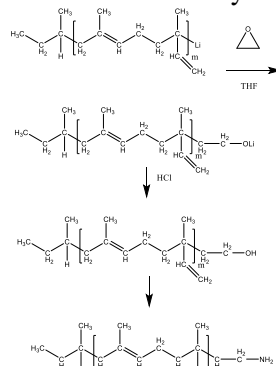
**Composition:**

Mn x 10 <sup>3</sup>	PDI
10.0	1.03

NH2 functionality >95%
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**Synthesis Procedure:**

1, 4-addition hydroxy terminated polyisoprene was prepared by anionic living polymerization in a non-polar solvent using sec.BuLi initiator followed by termination with ethylene oxide. OH end terminated Poly IP converted to NH2.



**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.

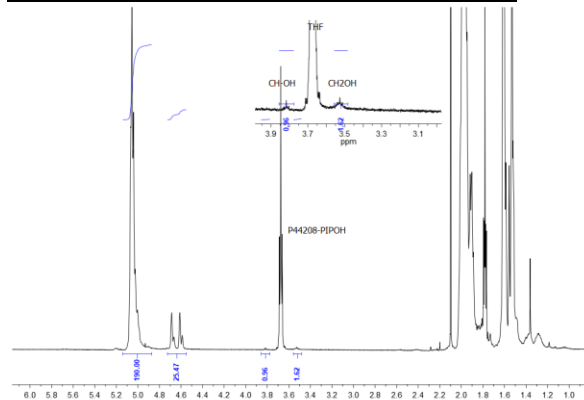
**Functionality:**

Functionality of the obtained polymer was determined by reacting polymer in dried non quantity of acetic anhydride in the presence of pyridine as a catalyst and the liberated COOH was titrated by acid-base titration.

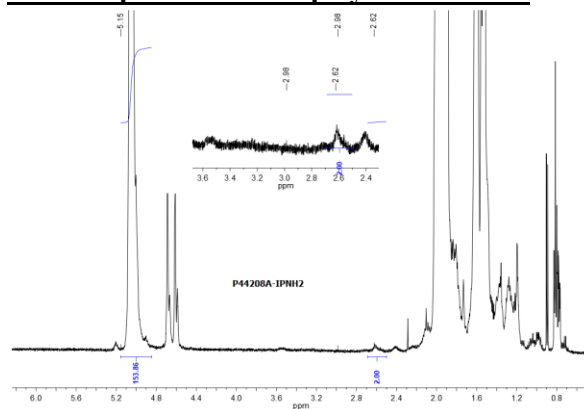
**Solubility:**

Amino terminated polyisoprene is soluble in THF, toluene, hexane, cyclohexane and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, and water.

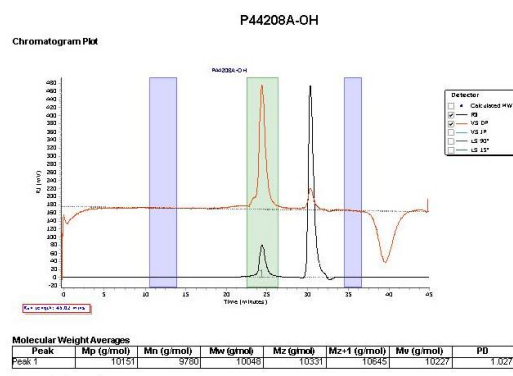
**HNMR spectrum of the polymer IP-OH:**



**HNMR spectrum of the polymer -IP-NH2**



**SEC elugram of the Sample:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)	PDI
Peak 1	10151	9780	10048	10331	10645	10227	1.027