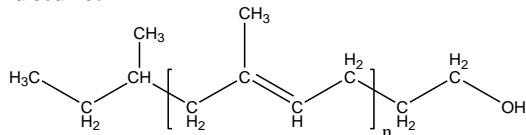


Sample Name:

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

Sample #: **P44208F1-IPOH**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
13.0	1.06

OH 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.

**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.

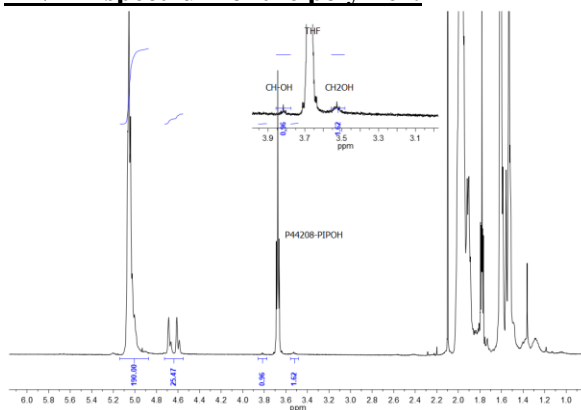
**Functionality:**

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:**

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

**HNMR spectrum of the polymer:**



**SEC elugram of the Sample:**

