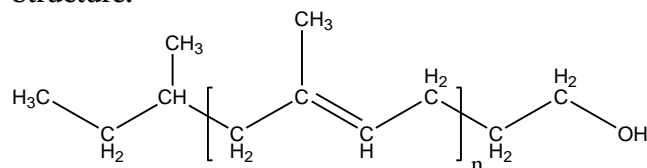


Sample Name: **Hydroxy Terminated Polyisoprene, 1,4-microstructure**

Sample #: **P19356-IPOH**

Structure:

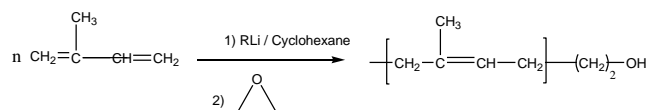


Composition:

Mn x 10 ³	PDI
5.5	1.07

Synthesis Procedure:

1, 4-addition hydroxy terminated polyisoprene was prepared by anionic living polymerization in a non-polar solvent followed by termination with ethylene oxide. The scheme of the reaction is illustrated below:



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.

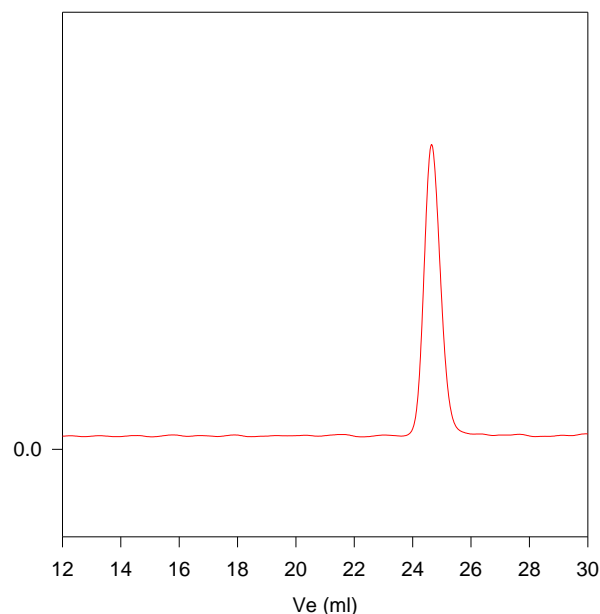
Functionality: functionality of the obtained polymer was determined by reacting polymer in dried non quantity of acetic anhydride in the presence of pyridine as a catalyst and the liberated COOH was titrated by acid-base titration.

Solubility:

Hydroxy terminated polyisoprene is soluble in DMF, THF, toluene, hexane, cyclohexane and CHCl₃. It precipitates from methanol, ethanol, water.

SEC of Sample:

P19356-IPOH(1,4 rich addition)



Size Exclusion Chromatogram of Hydroxy Terminated Polyisoprene

— Polyisoprene: M_n=5,400, M_w=5,800, M_w/M_n=1.07

HNMR of the product:

