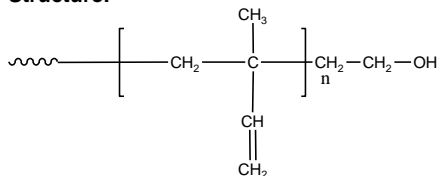


**Sample Name: Hydroxy Terminated
Polyisoprene, 1,2 and 3,4 -microstructure rich**

Sample #: P 9529-IPOH

Structure:

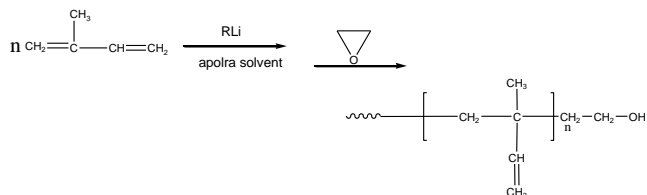


Composition:

Mn x 10 ³	PDI
12.5	1.06
OH functionality	>99%

Synthesis Procedure:

1,2 and 3, 4 -addition hydroxy terminated polyisoprene was prepared by anionic living polymerization in a apolar solvent (THF) 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.

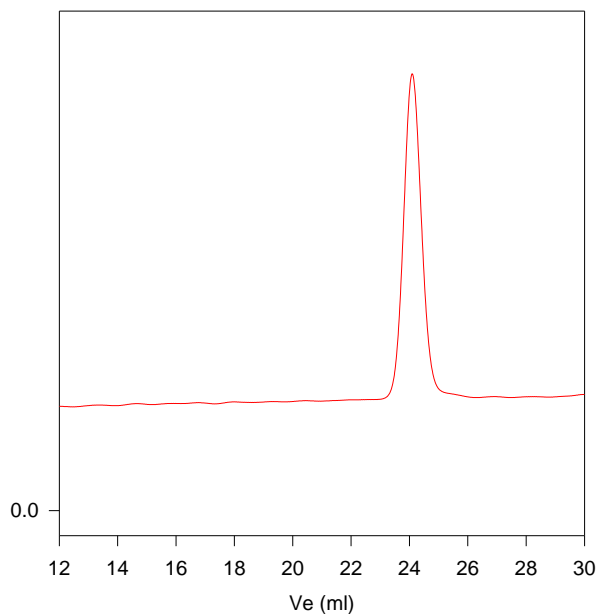
Functionality: functionality of the obtained polymer was determined by reacting polymer in dried non quantity of acetic anhydride in the presence of pyridine as a catalyst and the liberated COOH was titrated by acid-base titration and by HNMR spectroscopy.

Solubility:

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

SEC of Sample:

P9529-IPOH(1,2 and 3,4 rich addition)



Size Exclusion Chromatogram of Hydroxy Terminated Polyisoprene

— Polyisoprene: M_n=12500, M_w=13200, M_w/M_n=1.06

H-NMR:

