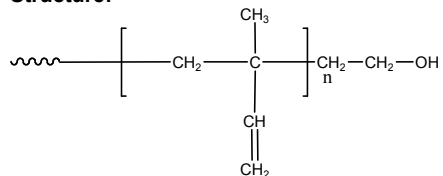


**Sample Name: Hydroxy Terminated
Polyisoprene, 1,2 and 3,4 -microstructure rich**

Sample #: P10719-IPOH

Structure:

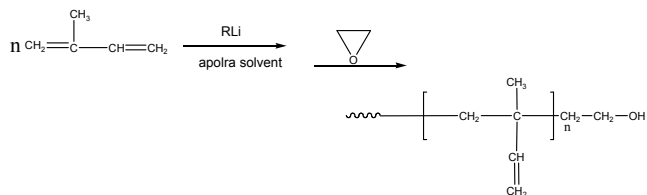


Composition:

Mn x 10 ³	PDI
17.0	1.09
Functionality	94%

Synthesis Procedure:

1,2 and 3, 4 -addition hydroxy terminated polyisoprene was prepared by anionic living polymerization in an 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.

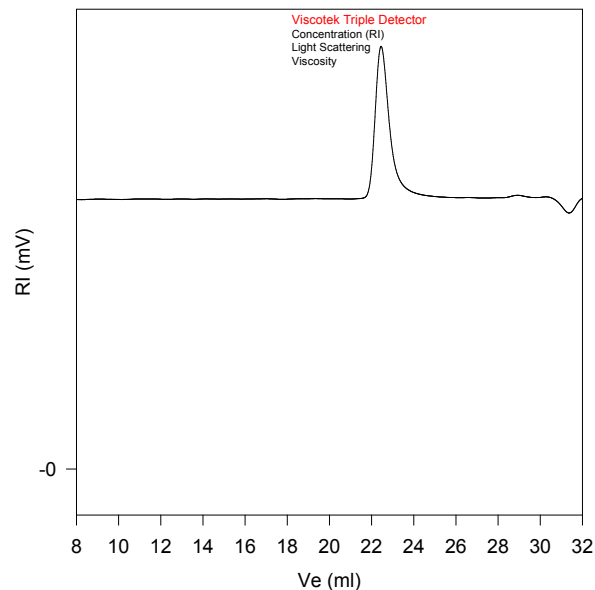
Functionality: functionality of the obtained polymer was determined by reacting polymer in dried non quantity of acetic anhydride in the presence of pyridine as a catalyst and the liberated COOH was titrated by acid-base titration.

Solubility:

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

SEC of Sample:

P10719-IPOH



Size Exclusion Chromatography of Poly isoprene OH terminated

— M_n = 17,000, M_w = 18,500, M_w/M_n = 1.09