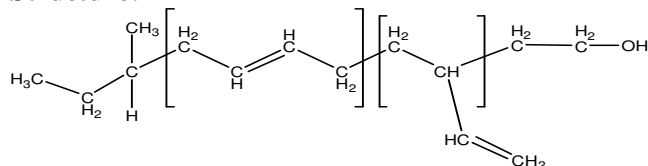


Sample Name: Hydroxy Terminated Polybutadiene,
1, 4-microstructure

Sample #: P19587A-BdOH

Structure:

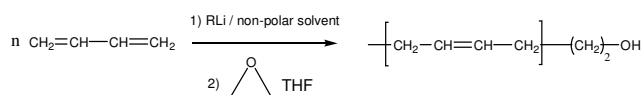


Composition:

Mn x 10 ³	PDI
47.0	1.10
1,4 microstructure	92%

Synthesis Procedure:

1, 4-addition hydroxy terminated polybutadiene was prepared by anionic living polymerization of butadiene in 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.

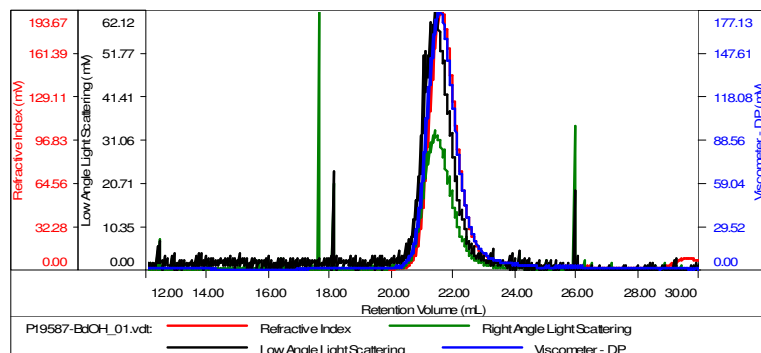
Solubility:

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

SEC of Sample:

Sample ID-P19587-BdOH

Concentration (mg/mL)	0.6420
Sample dn/dc (mL/g)	0.1250
Method File	PS80K-Nbv-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MMW Number Average (Da)	MMW Weight Average (Da)	MMW at Peak (Da)	Polydispersity	In Vi (dL)
P19587-BdOH_01.vdt	46,843	51,732	47,416	1.104	8.8