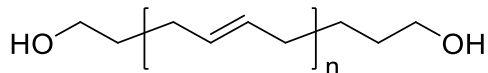
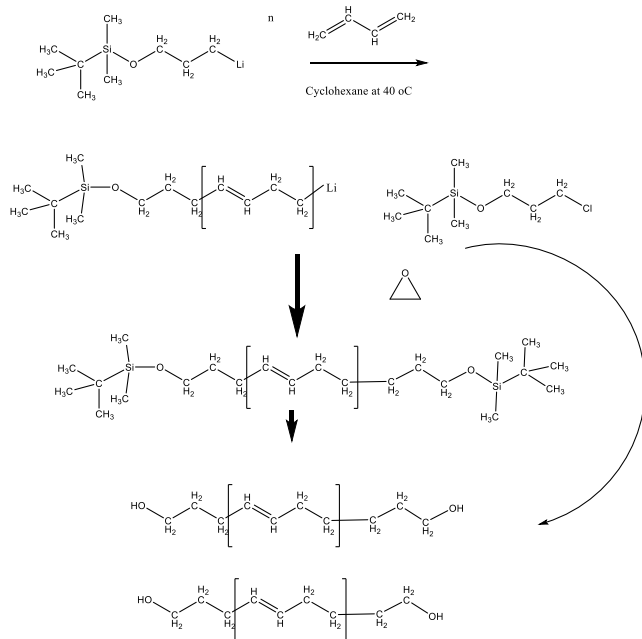


**Product Name:** **$\alpha,\omega$ -Bis(hydroxy)-terminated Poly(1,4-butadiene)****Product # P42562-Bd2OH****Structure:****Composition:**

$M_n \times 10^3$ (g/mol)	$M_w/M_n$	Content of 1,4-rich Bd
5.0	1.01	88%

**Synthesis procedure:**

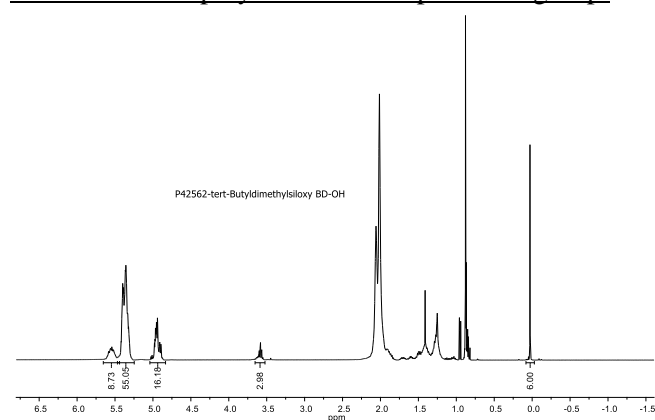
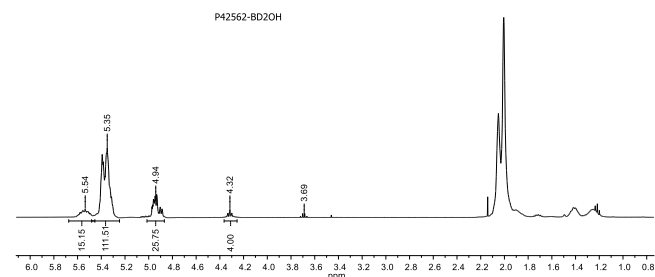
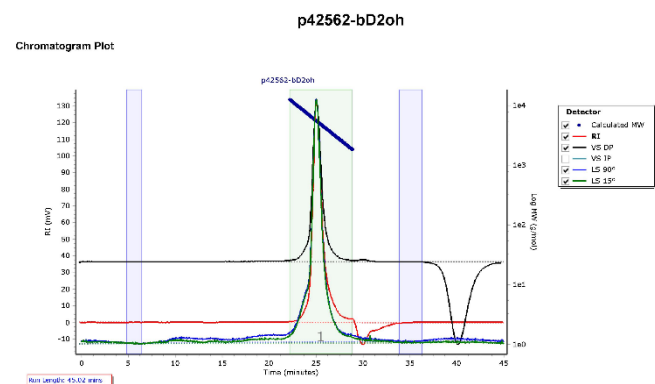
Dihydroxy-terminated polybutadiene, rich in 1,4-addition, was prepared by anionic living polymerization of butadiene in a polar solvent (cyclohexane). The scheme of reaction is presented below:

**Characterization:**

The molecular weight and polydispersity index were determined by size exclusion chromatography (SEC) using triple detection method. The microstructure of the product was calculated from proton NMR spectroscopy.

**Solubility:**

Dihydroxy-terminated polybutadiene is soluble in tetrahydrofuran (THF), toluene, hexane, cyclohexane, chloroform, methanol and ethanol.

 **$^1\text{H}$ -NMR of the polymer with end-protected group:****After cleavage of (tert-butyl dimethylsiloxy)-end group using TFA in DCM:****SEC chromatogram of the product:**

Peak	$M_p$ (g/mol)	$M_n$ (g/mol)	$M_w$ (g/mol)	$M_z$ (g/mol)	$M_z+1$ (g/mol)	$M_v$ (g/mol)	PD
Peak 1	5513	4955	5249	5508	5766	5437	1.059