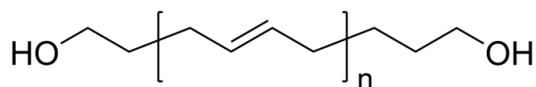


Sample Name:  
**Poly(1,4-butadiene),  $\alpha,\omega$ -bis(hydroxy)-terminated**

Sample #: P43852-Bd2OH

**Structure:**

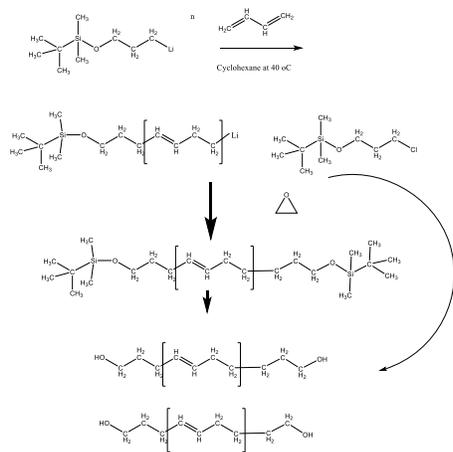


**Composition:**

Mn x 10 <sup>3</sup>	PDI
2.9	1.02
1,4 Contents 90%	

**Synthesis Procedure:**

1,4-rich microstructure addition dihydroxy terminated polybutadiene was prepared by anionic living polymerization of butadiene in apolar solvent such as cyclohexane.



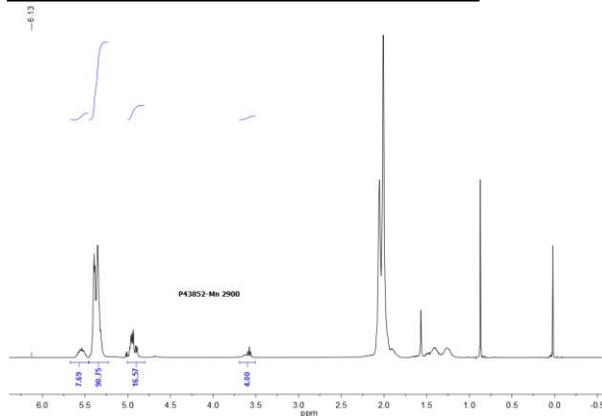
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR data analysis.

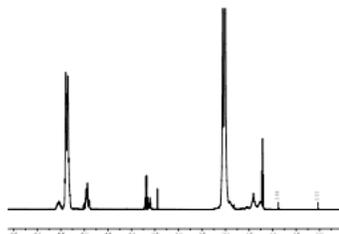
**Solubility:**

Hydroxy terminated polybutadiene is soluble in THF, toluene, hexane, cyclohexane and CHCl<sub>3</sub>. It is also soluble in methanol, ethanol.

**<sup>1</sup>H-NMR spectrum of the Product: Tert Butyldimethylsiloxy OH terminated:**

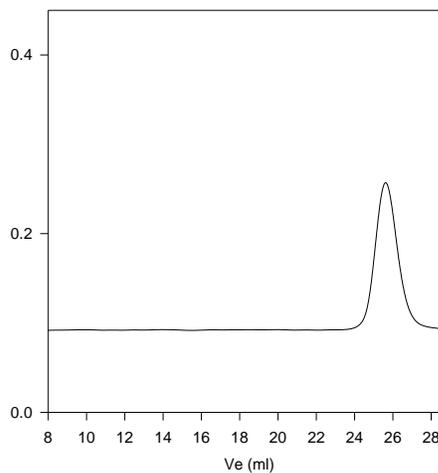


**Cleavage of tert. Butyl Dimethylsiloxy end group using (Bu)<sub>4</sub>NF in THF:**



**SEC profile of the Sample:**

**P43852-BdOH (1,2 addition)**



Size exclusion chromatography of poly(butadiene-*b*-ethylene oxide):  
 — 1,4 rich polybutadiene M<sub>n</sub>=2,900, M<sub>w</sub>=3,000, PI=1.02