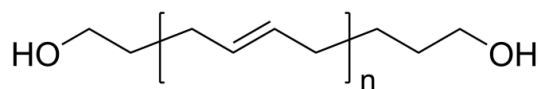


Sample Name:  
**Poly(1,4-butadiene),  $\alpha,\omega$ -bis(hydroxy)-terminated**

Sample #: **P43851-Bd2OH**

**Structure:**

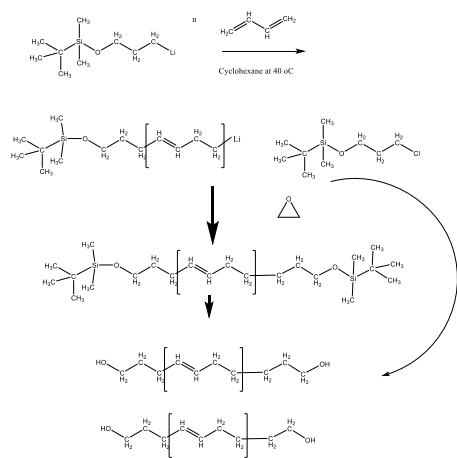


**Composition:**

$M_n \times 10^3$	PDI
2.6	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.



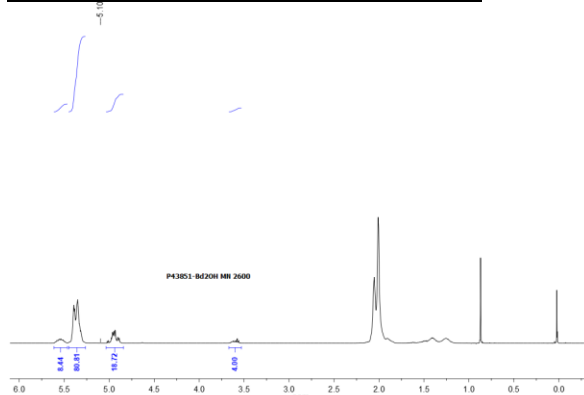
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and  $^1\text{H}$  NMR data analysis.

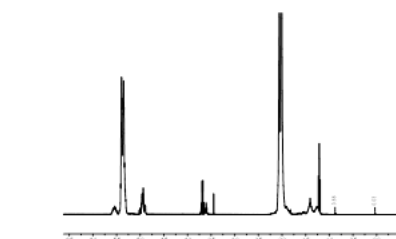
**Solubility:**

Hydroxy terminated polybutadiene is soluble in THF, toluene, hexane, cyclohexane and  $\text{CHCl}_3$ . It is also soluble in methanol, ethanol.

**$^1\text{H}$ -NMR spectrum of the Product: Tert Butyldimethylsiloxy OH terminated:**

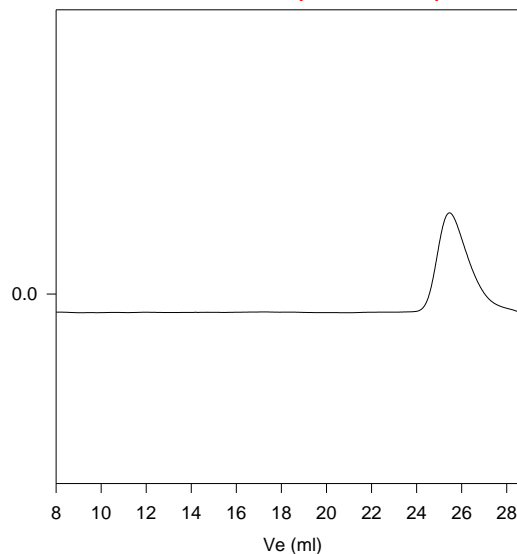


**Cleavage of tert-Butyl Dimethylsiloxy end group using (Bu) $_4$ NF in THF:**



**SEC profile of the Sample:**

**P43851-Bd2OH (1,4 addition)**



Size exclusion chromatography of poly(butadiene)  
 — Polybutadiene  $M_n=2,600$ ,  $M_w=2800$ ,  $PI=1.02$