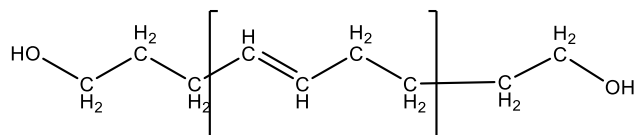


Sample Name:
Poly(1,4-butadiene), α,ω -bis(hydroxy)-terminated

Sample #: P43298A-Bd2OH

Structure:

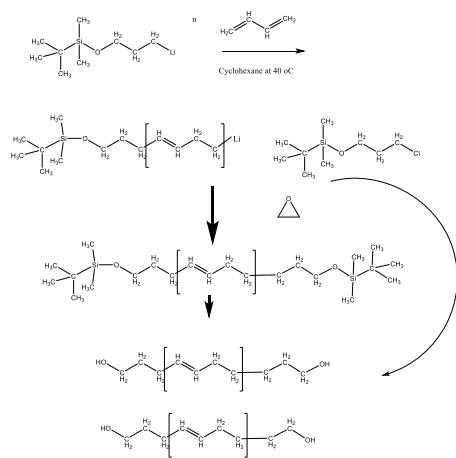


Composition:

| | |
|----------------------|------|
| Mn x 10 ³ | PDI |
| 2.5 | 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 a polar solvent such as cyclohexane.



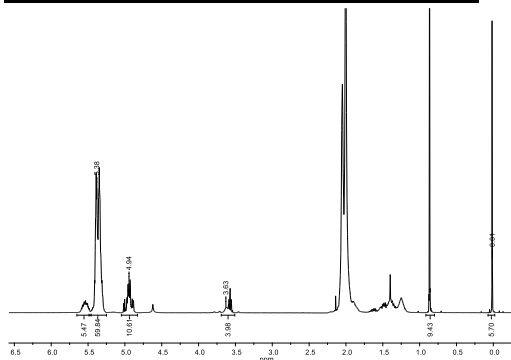
Characterization:

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

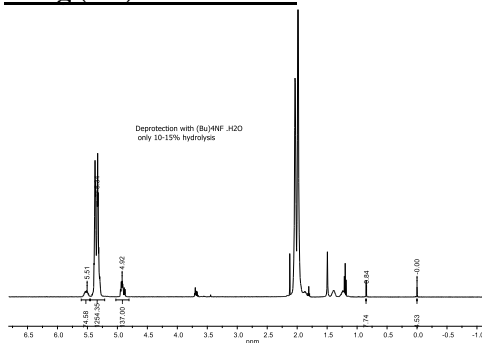
Solubility:

Hydroxy terminated polybutadiene is soluble in THF, toluene, hexane, cyclohexane and CHCl₃. It is also soluble in methanol, and ethanol.

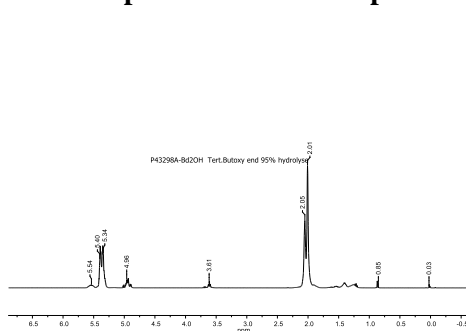
¹H-NMR spectrum of the Product: Tert Butyldimethylsiloxy OH terminated:



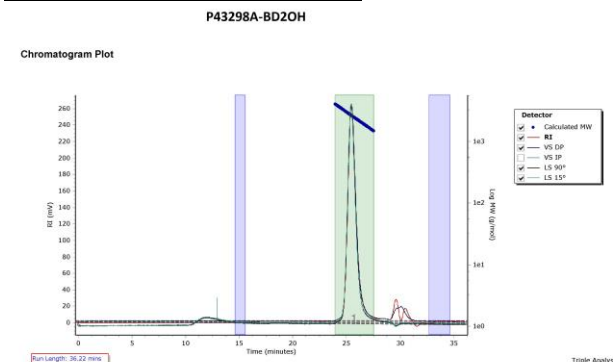
Cleavage of tert-Butyl Dimethylsiloxy end group using (Bu)₄NF in THF:



¹H NMR spectrum of the Sample:



SEC elugram of the Sample:



| Molecular Weight Averages | | | | | | |
|---------------------------|------------|------------|------------|------------|--------------|------------|
| Peak | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mv (g/mol) |
| Peak 1 | 2651 | 2527 | 2572 | 2612 | 2649 | 2602 |