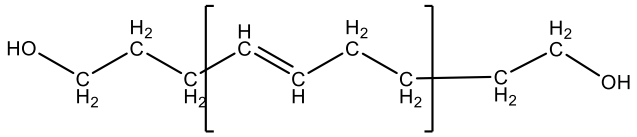
Sample Name:

α–ω dihydroxy Terminated Polybutadiene, 1,4-rich microstructure

Sample #: **P42537-Bd2OH**

Structure:

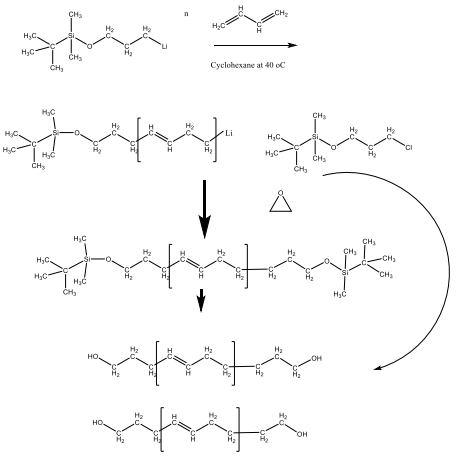


Composition:

Mn x 10^3	PDI
4.7 (HNMR) (3.5)	1.15
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.



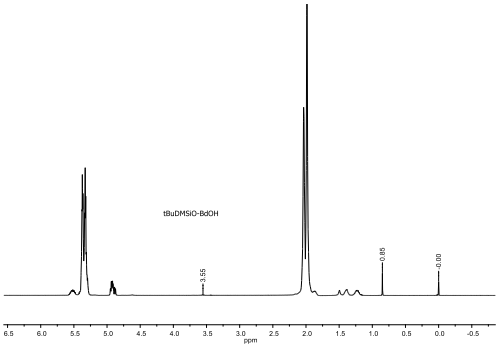
Characterization:

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

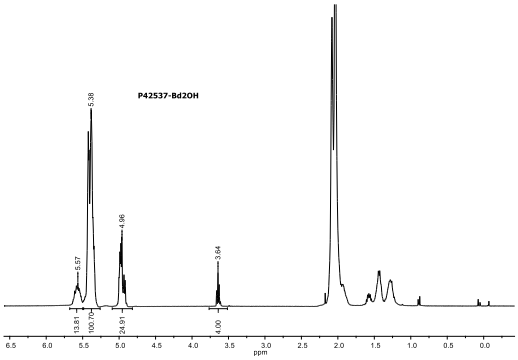
Solubility:

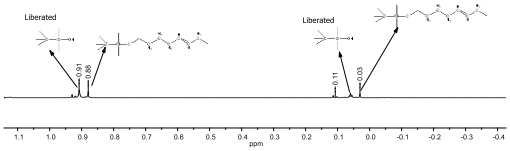
Hydroxy terminated polybutadiene is soluble in THF, toluene, hexane, cyclohexane and $CHCl_3$. It is also soluble in methanol, ethanol.

^{1}H-NMR spectrum of the Product:

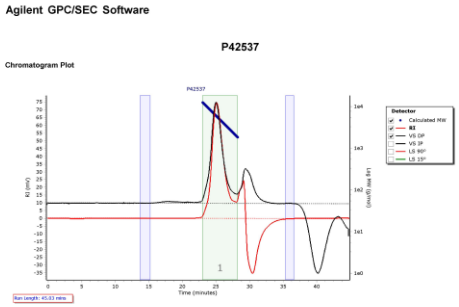


Clevage of tert.Butyl Dimethylsiloxy end group using TFA in DCM:





SEC elugram of Sample:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	5962	4769	5510	6173	6786	5993	1.151

Processing Parameters

Method	Last modified by GPC Agilent2 at 10:21:28 AM on July-23-19
Concentration Detector Used in Analysis	RI
Injection volume (µL)	100.00
Flow rate (mL/min)	1.00
Concentration options	Calculate Sample Concentration from Entered Sample Properties
Entered dn/dc (mL/g)	0.128