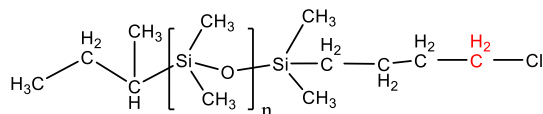


Sample Name:

α -Butyl chloride terminated Poly(dimethyl siloxane)

Sample #: **P43747B-DMSBuCl**

Structure:



Composition:

| Mn x 10 ³ | PDI |
|----------------------|-----|
| 10.0 | 1.2 |

Synthesis Procedure:

α -Butyl chloride terminated Poly(dimethyl siloxane) was prepared by ionic living polymerization and the termination was carried out with (chlorobutyl dimethylchlorosilane in THF. Polymer was purified after passing through the column packed with silica, eluent CHCl₃. Unreacted electrophile was removed by repeated precipitation in cold methanol and followed by varied by SEC.

Ref: J.X. Zhang, S.K. Varshney, "Simple Approach for the Scale-up Production of Block Copolymer of Polydimethylsiloxane with (Meth)acrylic Ester Monomers" Designed Monomers and Polymers, 2002, 1, 79

Characterization:

By Size exclusion chromatography (SEC in Toluene at Room temperature. RI response was negative, and it was change to Positive before calculating molecular weights.

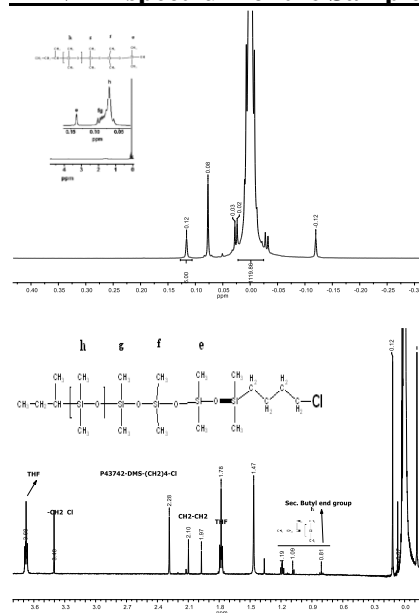
Functionality:

Functionality of the polymer was determined by ¹H NMR analysis. It was found over 98%.

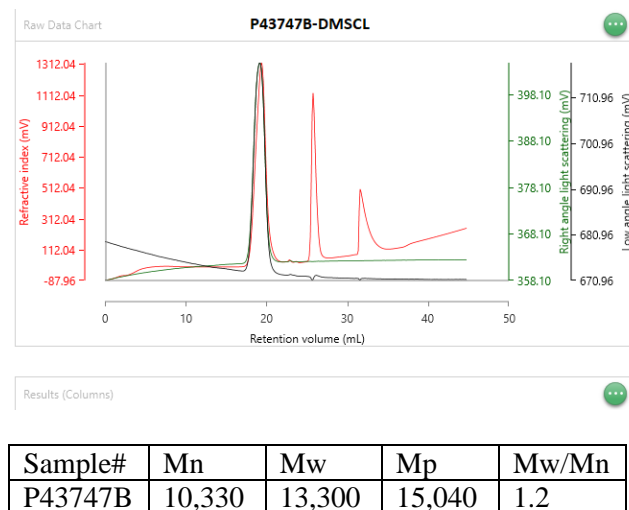
Solubility:

Polymer is soluble in CHCl₃, THF. It is precipitated out from cold ethanol, isopropanol.

¹H NMR spectrum of the Sample:



SEC elugram of the Sample:



| Sample# | Mn | Mw | Mp | Mw/Mn |
|---------|--------|--------|--------|-------|
| P43747B | 10,330 | 13,300 | 15,040 | 1.2 |