

Sample Name:

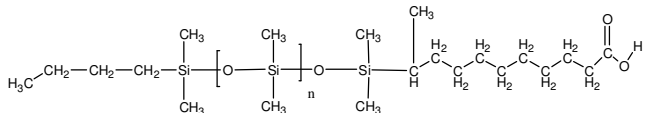
Mono Carboxy decyl Terminated PDMS.

Or

Mono undecanoic acid terminated PDMS.

Sample #: **P18616-DMSC10COOH**

Structure:

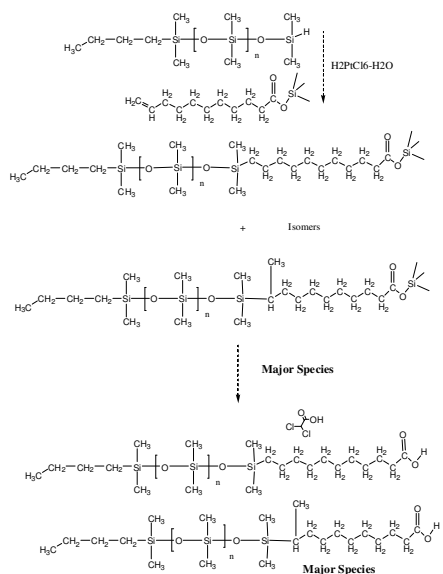


Composition:

Mn x 10 ³	PDI
3.5	1.2

Synthesis Procedure:

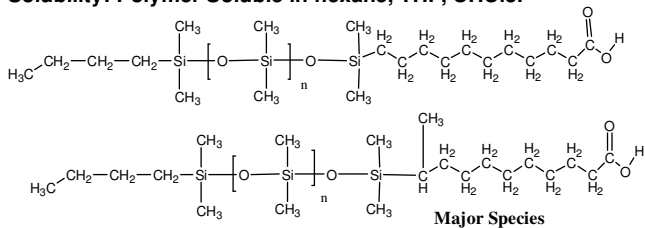
Carboxy terminated polydimethylsiloxane was prepared by living anionic polymerization of hexamethyl cyclotrisiloxane,



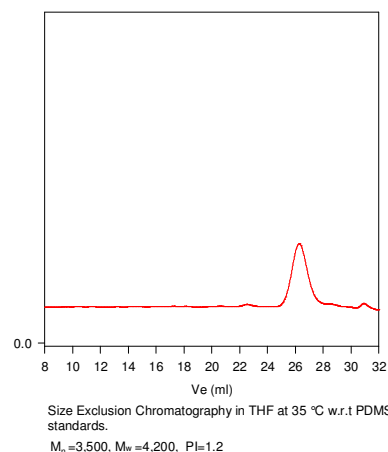
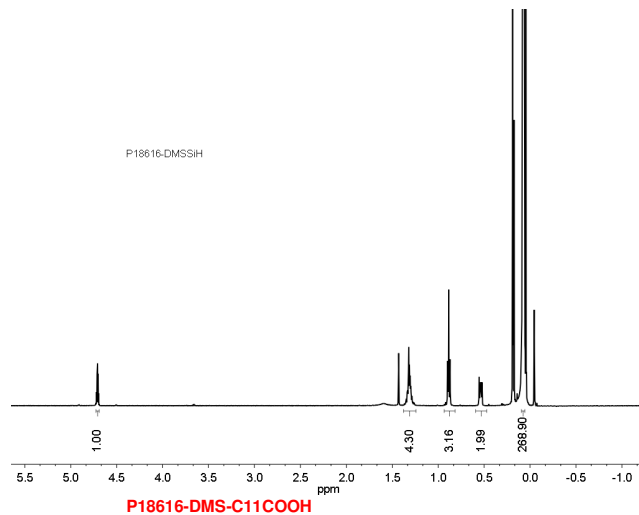
Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using 1a Varian liquid chromatograph equipped with a UV and refractive index detector.

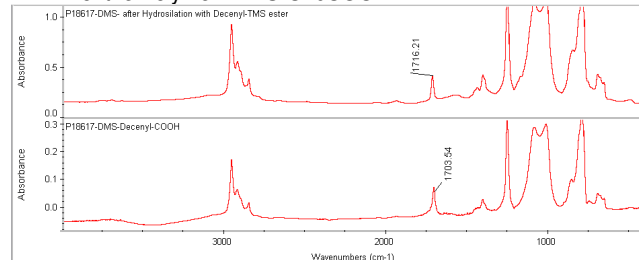
Solubility: Polymer Soluble in hexane, THF, CHCl₃.



The polymer is soluble in hexane, toluene, cyclohexane, THF and chloroform but precipitates from methanol and ethanol



HNMR of the Polymer PDMS-C10COOH



C=O in Ester at : 1716 cm⁻¹ while in Decyl -COOH at 1703 cm⁻¹
Reference:

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.