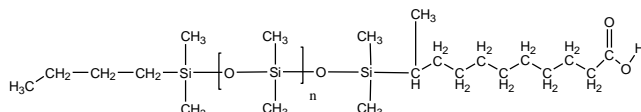


Sample Name:
MONOCARBOXYDECYL TERMINATED
POLYDIMETHYLSILOXANE,

Sample #: P4316-DMSCOOH

Structure:

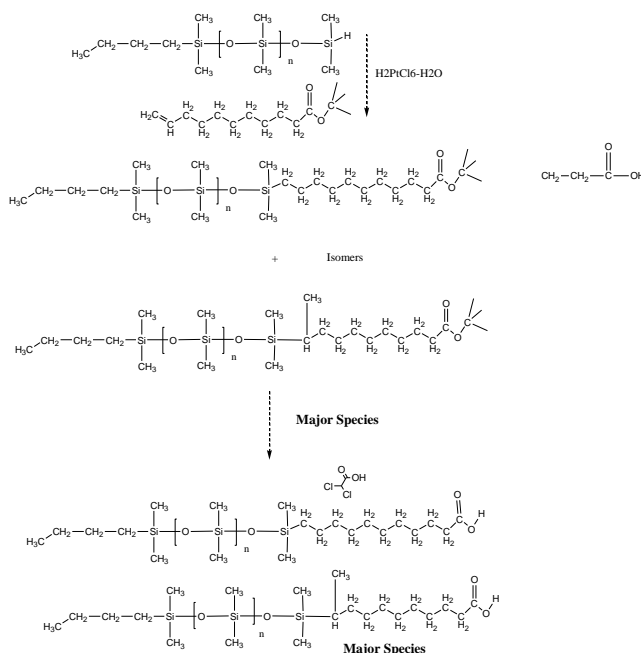


Composition:

Mn x 10 ³	PDI
1.0	1.3

Synthesis Procedure:

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

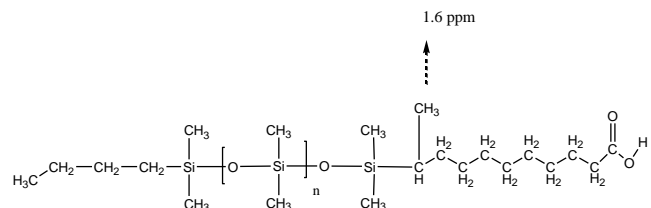
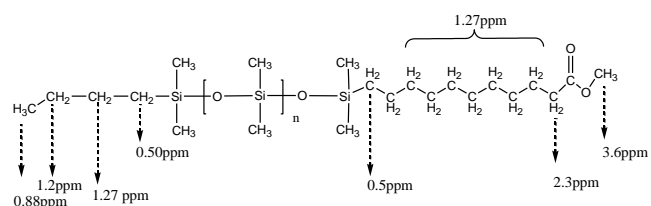


Characterization:

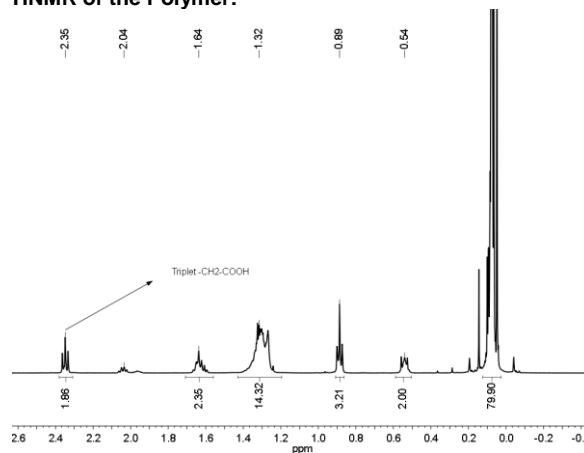
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

Solubility:

Polymer is soluble in hexane, THF, CHCl₃.

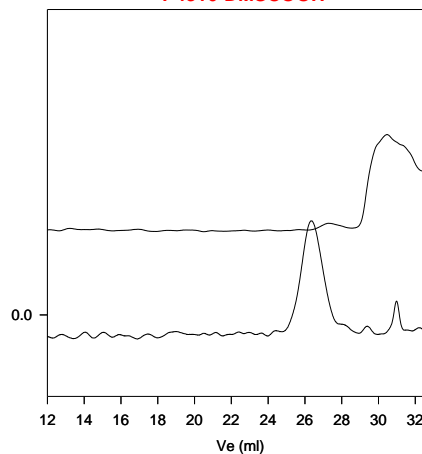


HNMR of the Polymer:



SEC of Sample:

P4316-DMSCOOH



Size exclusion chromatography of COOH terminated dimethylsiloxane

..... Polydimethylsiloxane M_n=1000, M_w=1300, PDI=1.3
Silane terminated Before hydrosilation reaction to obtain
Mono carboxy decyl terminated PDMS :
the elution of such functionalized polymer retarded due to strong interaction
with the column packing material.

Reference:

1. 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