

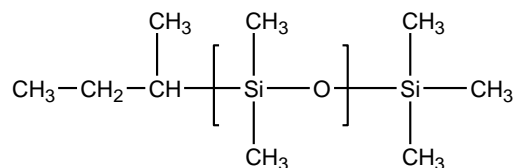
Sample Name: Polydimethylsiloxane Disilanol terminal group

SEC of Homopolymer:

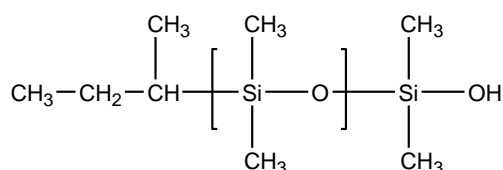
P10918-DMS

Sample #: P10918-DMS2OH (structure C)

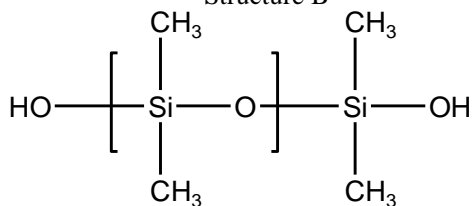
Structure:



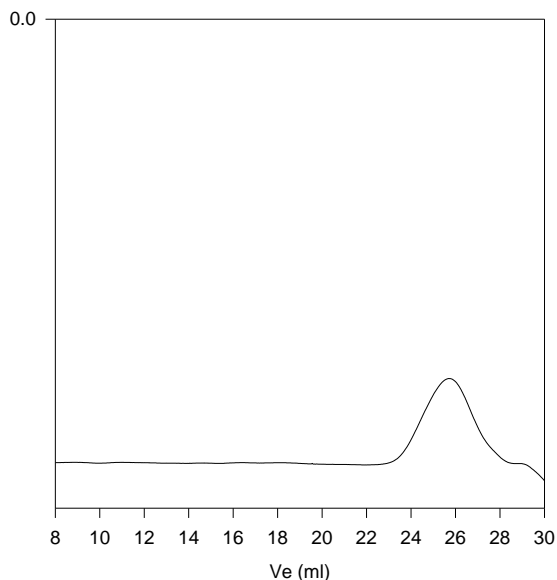
Structure A



Structure B



Structure C



Size Exclusion Chromatography in THF at 35 °C w.r.t PDMS standards.

$M_n = 2600$, $M_w = 4,000$, $PI = 1.6$

Composition:

$M_n \times 10^3$	PDI
2.6	1.6

Synthesis Procedure:

The polymerization of the cyclic trimer (hexamethyl cyclotrisiloxane-D3) was initiated with a dinctional lithium based initiator in a polar / non-polar solvent mixture.

Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Polydimethylsiloxane is soluble in hexane, toluene, cyclohexane, THF and chloroform but precipitates from methanol and ethanol.