

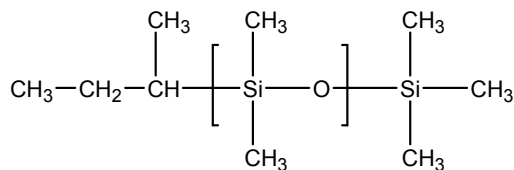
**Sample Name:** Polydimethylsiloxane Disilanol terminal group

**SEC of Homopolymer:**

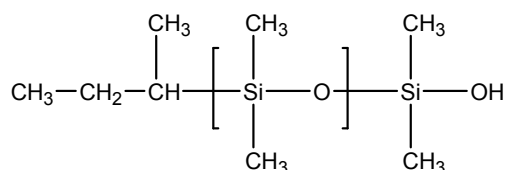
**P8922-DMS**

**Sample #:** P8922-DMS (structure C)

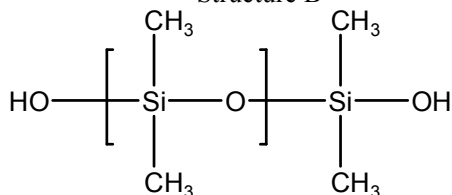
**Structure:**



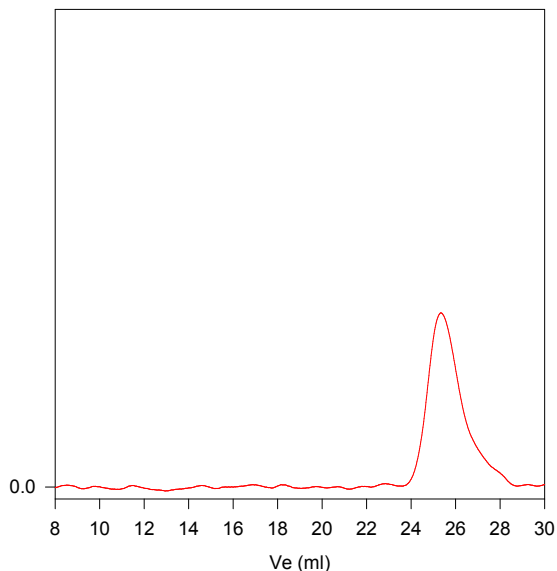
Structure A



Structure B



Structure C



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

$M_n = 4000$ ,  $M_w = 5600$ ,  $PI = 1.4$

**Composition:**

$M_n \times 10^3$	PDI
4.0	1.4

**Synthesis Procedure:**

The polymerization of the cyclic trimer (hexamethyl cyclotrisiloxane-D3) was initiated with a dunctional 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.