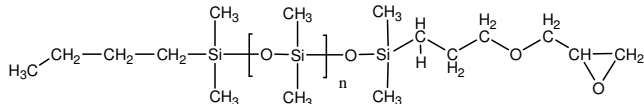


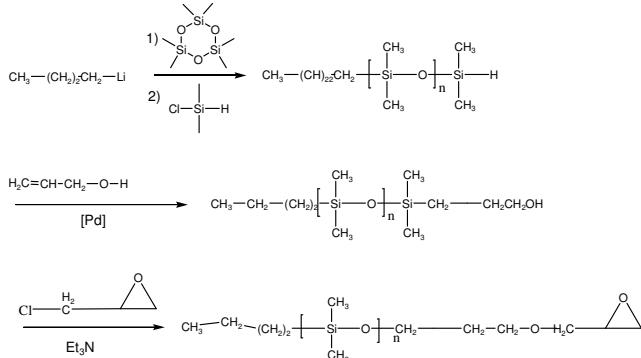
Glycidyl Terminated Polydimethylsiloxane Or Mono Epoxy terminated Polydimethylsiloxane

Structure:



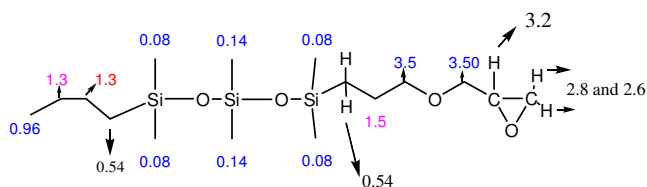
Mn x 10 ³	PDI
7.0	1.15

Glycidyl terminated poly(dimethyl siloxane) was prepared by living anionic polymerization of hexamethylcyclotrisiloxane(D3) followed by hydrosilation with allyl alcohol and than reacting with epichlorohydrine in THF in the presence of (Et)₃N. The scheme of the reaction is illustrated below:



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.

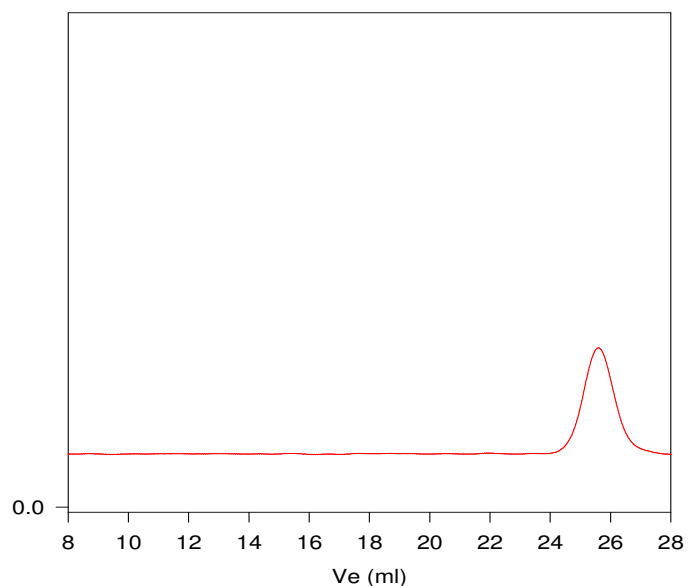
The polymer is soluble in CHCl₃, Toluene, Hexane.



The figure displays the ¹H NMR spectrum of P19717-DMS-Epoxy. The chemical structure is shown with various protons labeled with numbers and letters, and their corresponding chemical shifts are indicated above the spectrum. The spectrum shows several peaks in the aromatic region (6.0-7.5 ppm), a cluster of peaks between 3.0 and 4.0 ppm, and a large peak at 0.0 ppm (TMS). The chemical structure includes a central silicon atom bonded to two phenyl rings and two methyl groups. The phenyl rings are substituted with various groups, including a methoxy group and a methyl group. The chemical shifts are listed as follows:

- 7.45, 7.41, 7.29, 7.26, 7.163, 7.133, 7.088, 7.055
- 3.96, 3.93, 3.54, 3.08, 3.14, 3.08, 3.5, 3.5, 3.2, 2.8 and 2.6, 1.5, 0.54, 0.54
- 1.18, 1.17, 1.08, 0.00

P19717-DMSEpoxy



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

$$M_n=7,000, M_w=8,000, PI=1.15$$