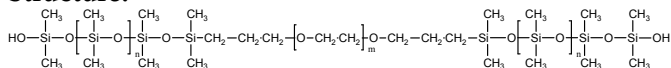


**Sample Name:** Poly(dimethyl siloxane-b-ethylene oxide-b-dimethyl siloxane) (terminal end Silanol)

**Sample #:** P9092A-DMSEODMS

Prepared by route : 2

**Structure:**

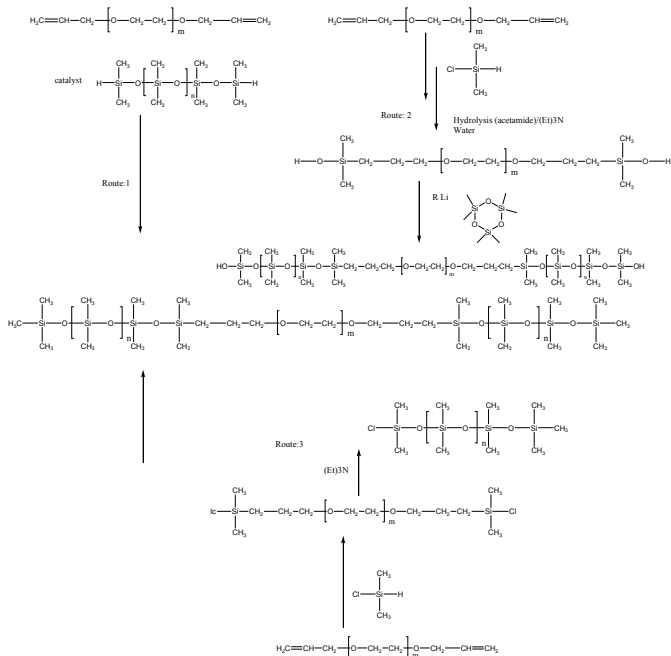


**Composition:**

| Mn x 10 <sup>3</sup> | PDI  |
|----------------------|------|
| PDMS-b-PEO-b-PDMS    |      |
| 0.9-b-0.42-b-0.9     | 1.25 |

**Synthesis Procedure:**

The polymer can be obtained by one of the following routes:



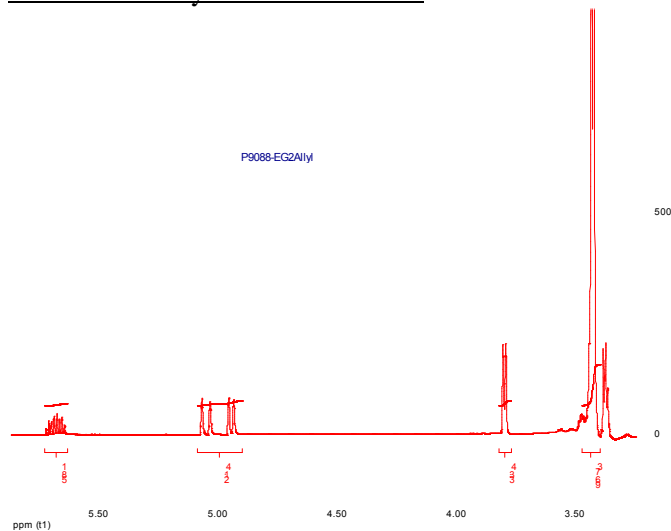
**Characterization:**

The polymer was analyzed by size exclusion chromatography (SEC) and NMR to obtain the molecular weight and polydispersity index (PDI). Copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the siloxane protons at about 0.08 ppm with the peak area of ethylene oxide protons at about 3.4 ppm.

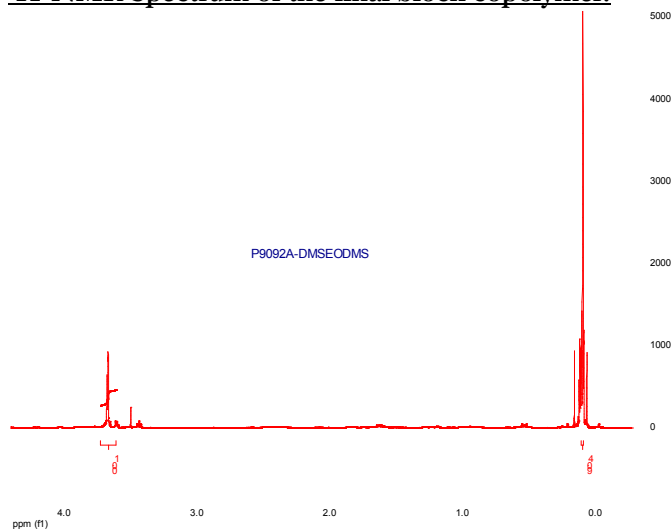
**Solubility:**

The polymer is soluble in THF, chloroform, not soluble in MeOH/water mixture; FTIR: SiH – Characteristics absorbance: 2120cm<sup>-1</sup> CH=CH<sub>2</sub> in PEG: absorbance: 1645cm<sup>-1</sup> After the reaction these absorbance must disappear indicating the stoichiometry required for the reaction.

## <sup>1</sup>H-NMR of allyl terminated PEO



## <sup>1</sup>H-NMR Spectrum of the final block copolymer:



## SEC of the polymer

**P9092A-DMSEODMS**

