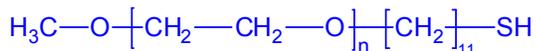


**Sample Name:**  
**Alkane (undecane) Thiol Terminated Poly(ethylene glycol)**

**Sample #:** P8869-EG-Alkane-SH

**Structure:**

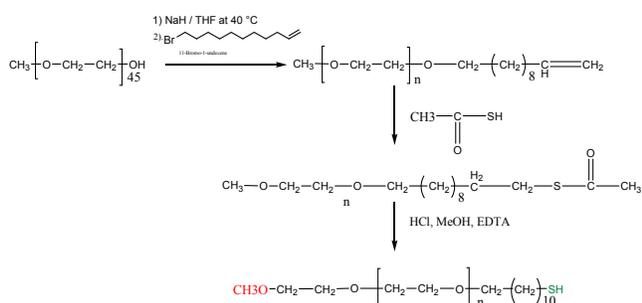


**Composition:**

Mn x 10 <sup>3</sup>	PDI	SH functionality
2.0	1.10	>90%

**Synthesis Procedure:**

Alkane thiol terminated Poly(ethylene glycol methyl ether) was prepared by procedure reported in Langmuir, 2002, 18, 8862.

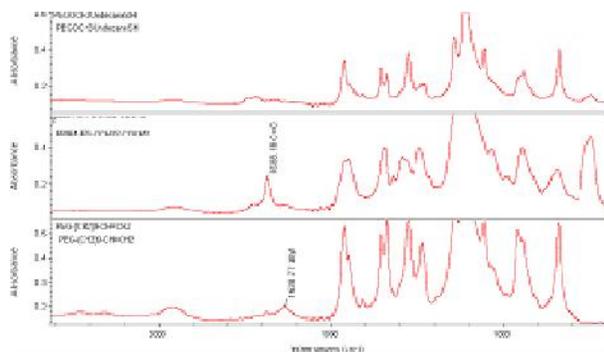


**Characterization:**

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.

**FTIR:**

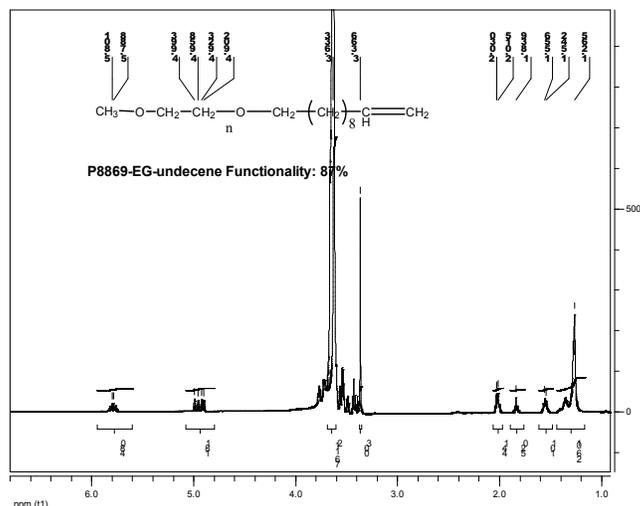
FTIR is used to monitor the reaction of this ester terminated PEG to free SH. Disappearance of the C=O at 1688 cm<sup>-1</sup>.



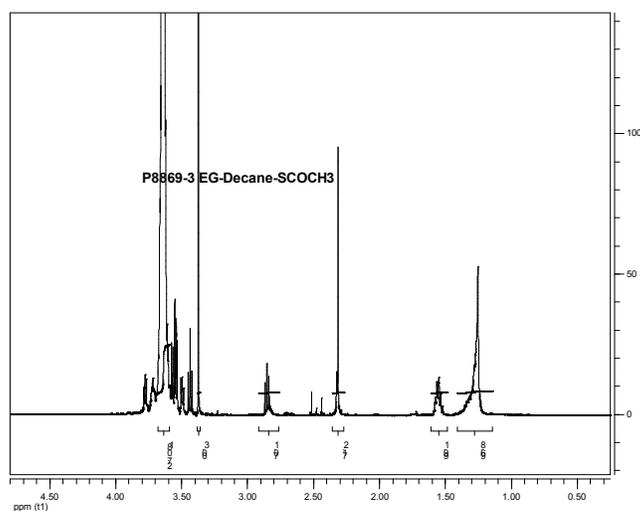
**Solubility:**

Polymer is soluble in water, methanol and ethanol, THF, CHCl<sub>3</sub>. It is precipitated out from cold ethanol, isopropanol, hexane and ether.

**1H NMR of CH3O-PEG-Undecene terminated:**

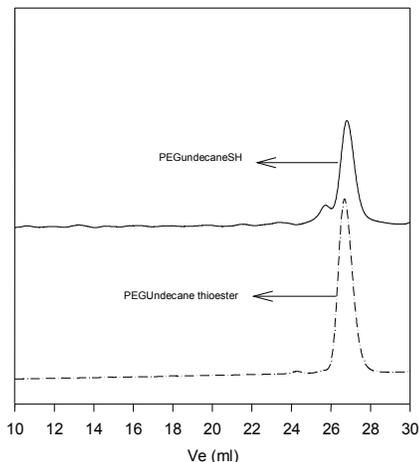


**1H NMR of EGOCH3-Undecane-SCOCH3**



**SEC of the Sample:**

**P8869-EG-Alkane-SH**



Size Exclusion Chromatography of thiol terminated Polyethylene oxide (SEC in THF at 35°C):

M<sub>n</sub> = 2000, M<sub>w</sub> = 2100 PI = 1.10