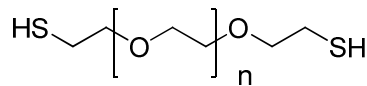


Sample Name:

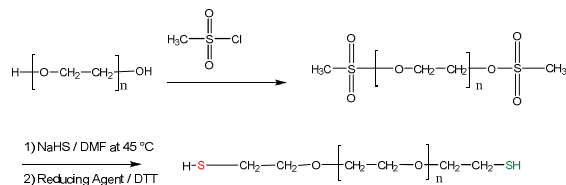
Poly (ethylene glycol) dithiol or
 α,ω -dithiol Terminated Poly(ethylene glycol)

Sample: P20223P-CC-EG2SH

Structure:**Composition:****Composition:**

| Mn x 10 ³ | PDI | SH functionality |
|--|-----|------------------|
| 1.7 | 1.2 | > 57% |
| S-S | | >25% |
| S-Na | | >5% |
| Other Free OH and mesylate, tributyl phosphine | | >15% |

*Mn is based (based on starting material)

Synthetic Procedure:**Characterization:**

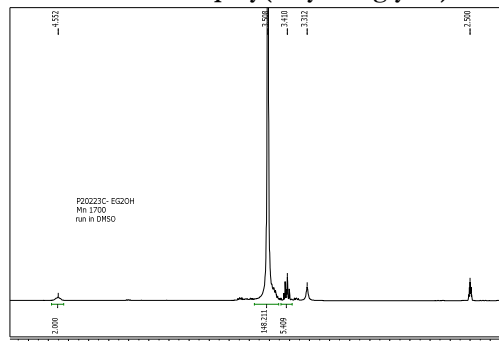
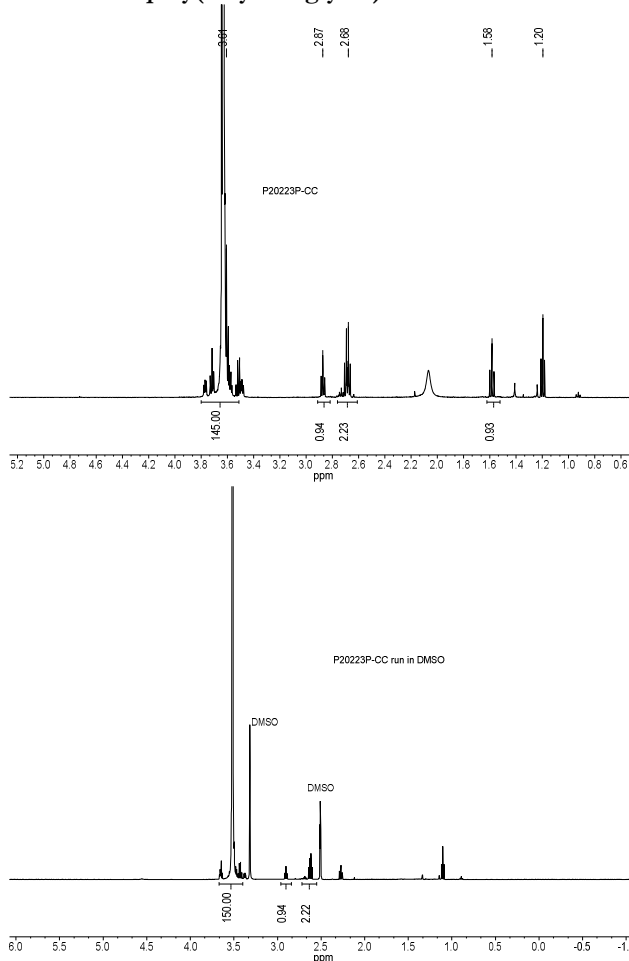
The molecular weight and polydispersity index were determined by ¹H NMR and size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with UV and refractive index detector.

Functionality: Functionality of the polymer was determined by ¹H NMR.

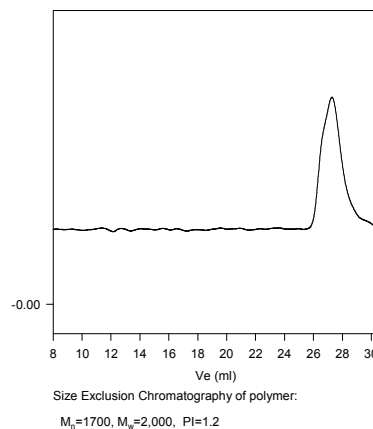
Solubility:

Polymer is soluble in water, acetone, THF, CHCl₃.

It was precipitated from hexane / ether.

¹H NMR of initial poly(ethylene glycol):**¹H NMR of poly(ethylene glycol) dithiol:****SEC of Sample:**

P20223-EG2SH

**References:**

S. K. Varshney, J.X. Zhang, Apply US patent 09/895,323, 2001. Heterofunctional Polyethylene glycol and Polyethylene oxide, process for their Manufacture.