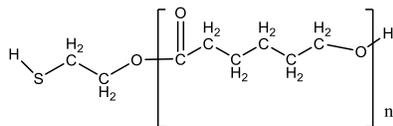


**Sample Name:** Poly( $\epsilon$ -caprolactone), ( $\alpha$ -thiol,  $\omega$ -hydroxy)-terminated

**Sample #:** P44073A2-CLOHSH

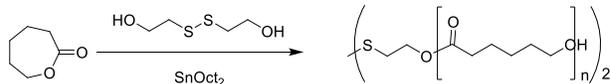
**Structure:**



**Composition:**

$M_n \times 10^3$ HOS-PCL-OH	PDI
3.5	1.3
SH functionality $\geq 70\%$	

**Synthetic Procedure:** (-S-PCL)<sub>2</sub> is prepared by ring-opening polymerization of  $\epsilon$ -caprolactone using disulfide-based initiator. The scheme of the reaction is illustrated below:



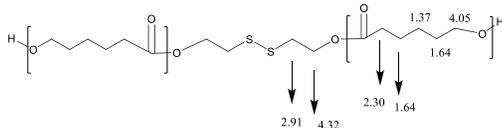
**Characterization:**

PCL bearing the disulfide linkage was analyzed by size exclusion chromatography with light-scattering detector (SEC-LS) to obtain the  $M_n$  and polydispersity (PDI).

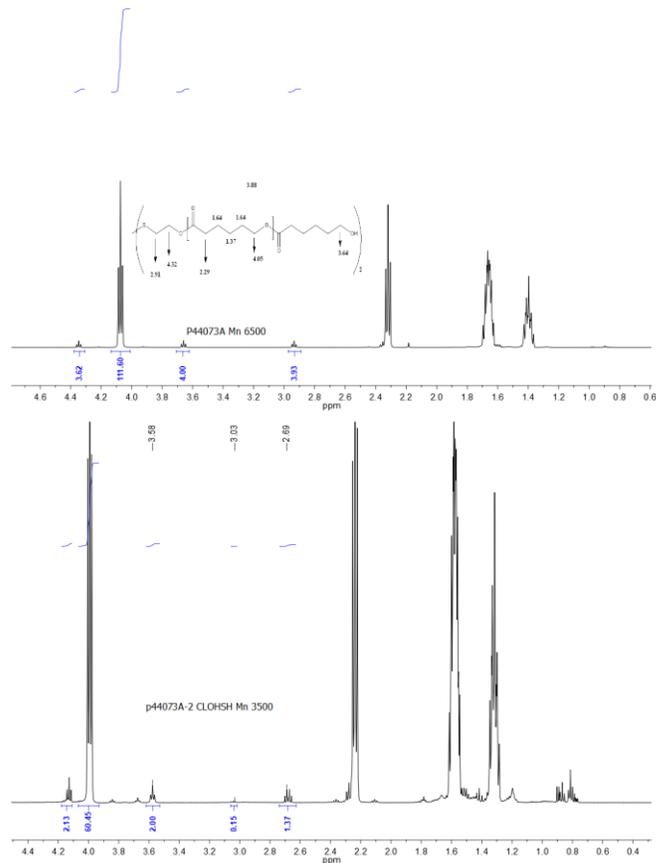
**Solubility:**

Poly( $\epsilon$ -caprolactone) is soluble in  $\text{CHCl}_3$ , Acetone, THF, insoluble in methanol, ethanol. Precipitated from Acetone or  $\text{CHCl}_3$  into hexane/EtOH or ether/EtOH.

**Chemical shifts assignments**



**$^1\text{H-NMR}$  of the PCL bearing disulfide linkage:**



**SEC of PCL-SS-PCL:**

Agilent GPC/SEC Software

