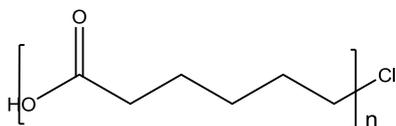


**Sample Name:**  $\alpha$ -Carboxy- $\omega$ -Chloro-terminated Poly( $\epsilon$ -caprolactone)

**Sample #:** P20062-CL-COOHCl

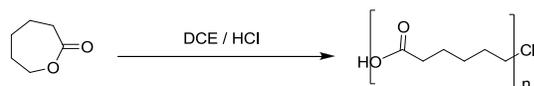


**Composition:**

$M_n \times 10^3$ HOOC-PCL-Cl	PDI
5.7 (NMR)	1.8 (SEC)

**Synthetic Procedure:**

HOOC-PCL-Cl is prepared by ring-opening polymerization of  $\epsilon$ -caprolactone according to the scheme illustrated below:



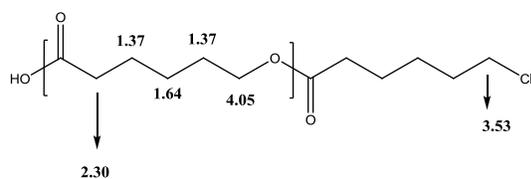
**Solubility:**

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

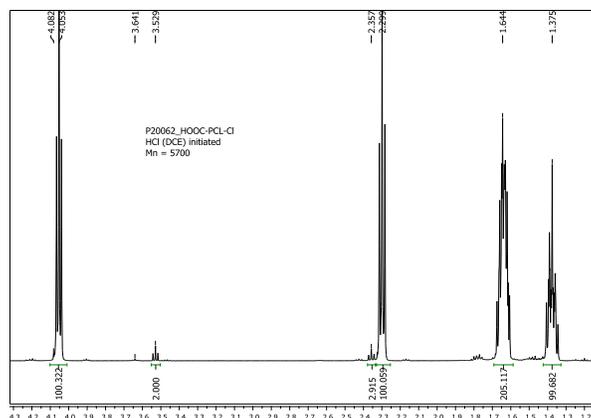
**Characterization:**

PCL, bearing carboxylic and chloroalkyl terminal units, was analyzed by size exclusion chromatography (SEC) to obtain the polydispersity index (PDI) and  $M_n$ .  $M_n$  was also determined by NMR.

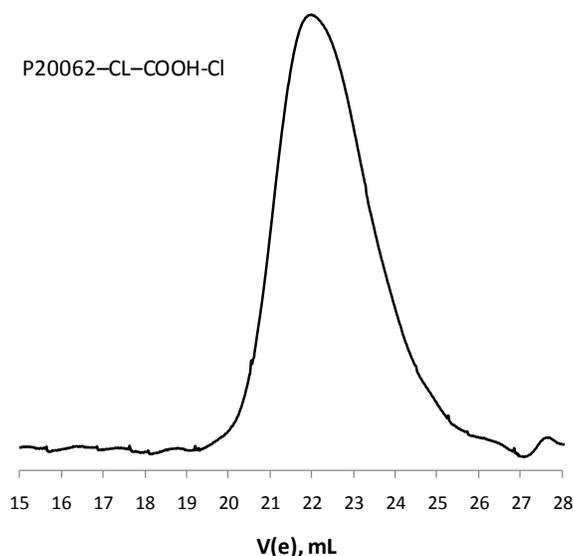
**Chemical shifts assignments**



**$^1\text{H}$  NMR of HOOC-PCL-Cl**



**SEC of the polymer:**



N.B.: Certain broadening of the elugram might be due to the strong interaction of COOH-group with the column packing material