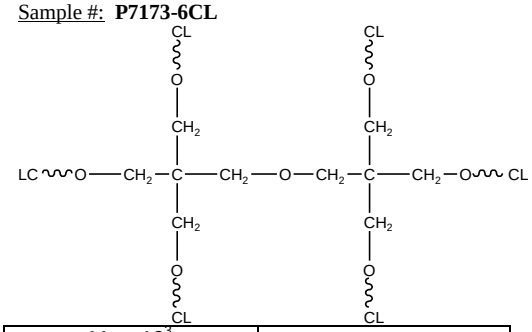
Sample Name:

Six arm Poly(ε-caprolactone)

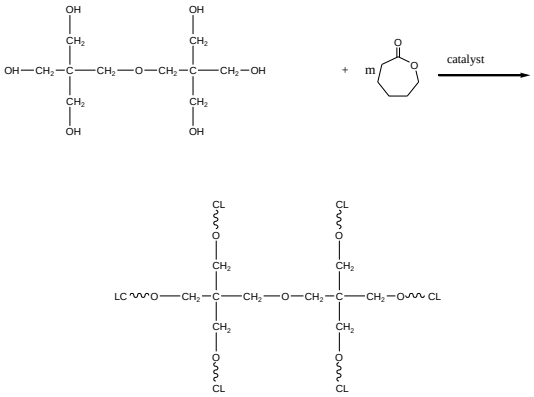
Sample #: **P7173-6CL**



Mn x 10^3 (branchl)	PDI
0.3 Total Mn(2000)	1.2

Synthesis Procedure:

The polymer was prepared by ring opening polymerization of caprolacton using Tin octoate as the catalyst. The scheme of the reaction is illustrated below:



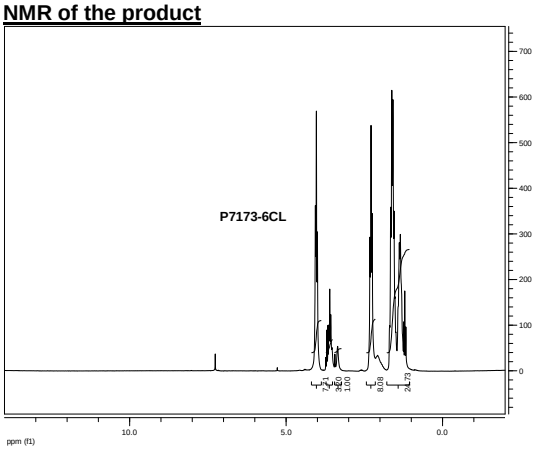
Characterization.

The Mn of the polymer is calculated from 1H-NMR spectroscopy by comparing the peak area of the core protons at about about 3.6 ppm with the **ε**-caprolactone protons at about 4.1 ppm. Polydispersity is determined by size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF containing 2 vol% (Et)3N as the eluent.

Solubility:

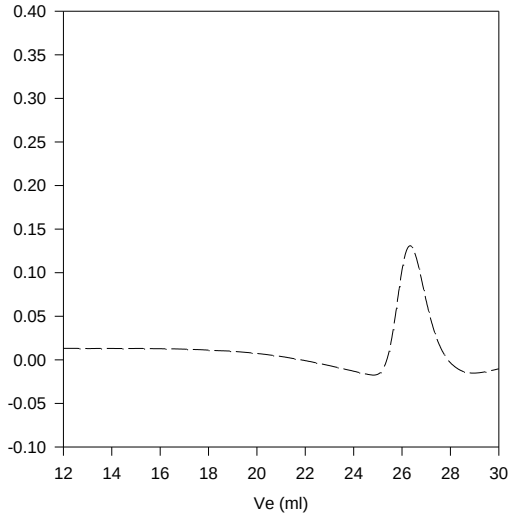
Polymer is soluble in toluene, THF, water and $CHCl_3$. The polymer is insoluble in hexane, ether, cold isopropanol and ethanol.

NMR of the product



SEC of the product

P7173-6CL



..... P7173-6CL: M_n=2000, M_w=2400, M_w/M_n=1.2
Core Mn 254