

Product Profile

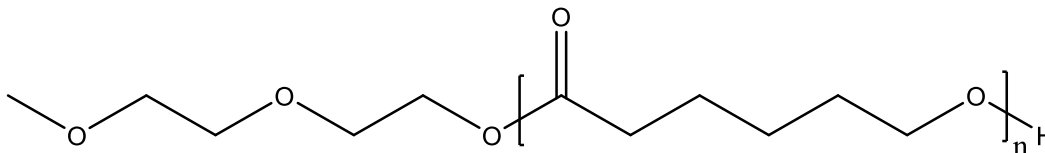
Identification

Product Name: Poly(ε-Caprolactone)

Product Lot Number: P18198D-CL

CAS #: 24980-41-4

Chemical Architecture:



Composition:

Mn (g/mole)	22,000
Mw (g/mole)	32,000
Mw/Mn	1.45
dn/dc (mL/g) in THF at 30 °C	0.025

Method of Synthesis

The polymer is synthesized by ring opening polymerization process.

Solubility in different solvents:

THF	√	DMF	√
Alcohol	X	CHCl ₃	√
Toluene	√	Water	X

Validation of Architecture

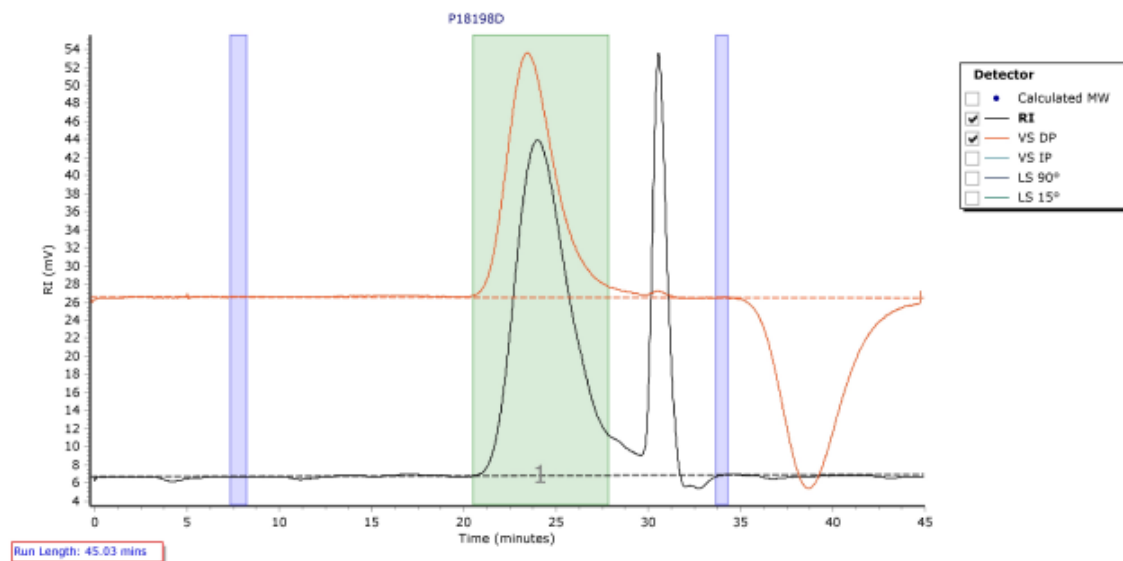
A. Gel Permeation Chromatography (GPC), SEC Profile:

Molecular weights were determined by Agilent Technologie 1260 Infinity II GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LS 15°) and three columns (PLgel, 7.5x300 mm, 5μm-10μm, 10⁵-10⁶Å). THF (stabilized BHT) with 1%(v/v%) TEA was the eluent. The flow rate was 1.0 ml/min.



P18198D

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	32827	22272	32297	43416	54418	41958	1.45

B. NMR (H¹NMR) of CL

CL sample was dissolved in CDCl₃. ¹H NMR spectra was determined using a 500 MHz. Bruker Avance III spectrometer.

