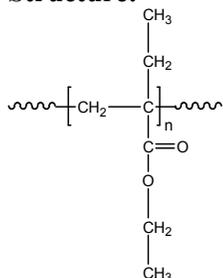


Sample Name: Poly (α -ethyl ethyl acrylate)

Sample #: P40418-EEA

Structure:

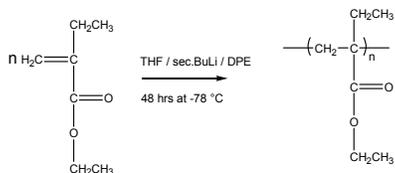
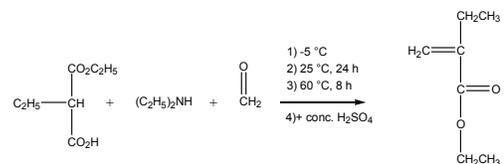
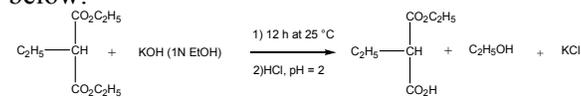


Composition:

$M_n \times 10^3$	PDI
18.0	1.7

Synthesis Procedure:

Poly (α -ethyl ethyl acrylate) is obtained by living anionic polymerization of ethyl α -ethyl ethyl acrylate. The reaction scheme used for the monomer and the polymer synthesis are shown below:



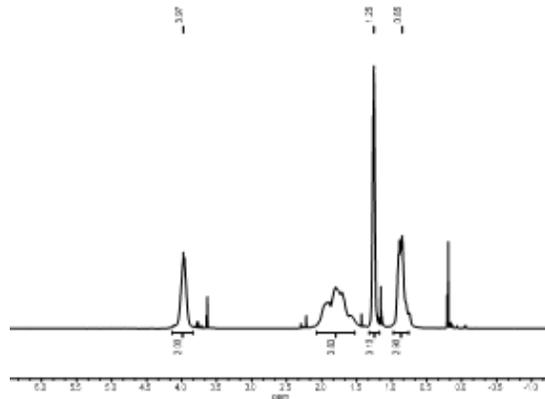
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Poly (ethyl-ethyl acrylate) is soluble in THF, toluene and CHCl_3 . This polymer precipitates from ethanol and methanol containing 10-15% water.

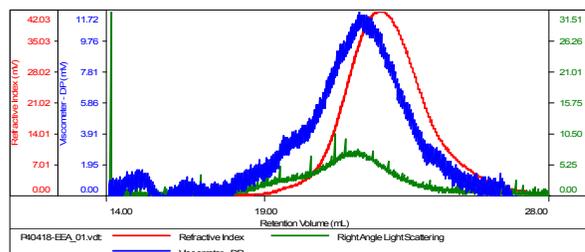
^1H NMR spectrum of the Polymer:



SEC elugram of Homopolymer:

P40418-EEA

Concentration (mg/mL)	2.4000
Sample dn/dc (mL/g)	0.0940
Method File	PS80K-Feb2017-0000.vcm
Column Set	3x PL 1113-6000
Solvent	THF



Sample	M_n (Da)	M_w (Da)	M_w/M_n	IV (dL/g)	M_p (Da)
P40418-EEA_01.vdt	17,856	30,904	1.731	0.3712	19,364