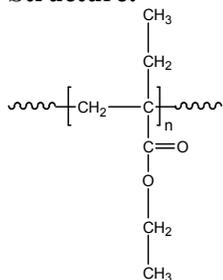


Sample Name: Poly (α -ethyl ethyl acrylate)

Sample #: P40404-EEA

Structure:

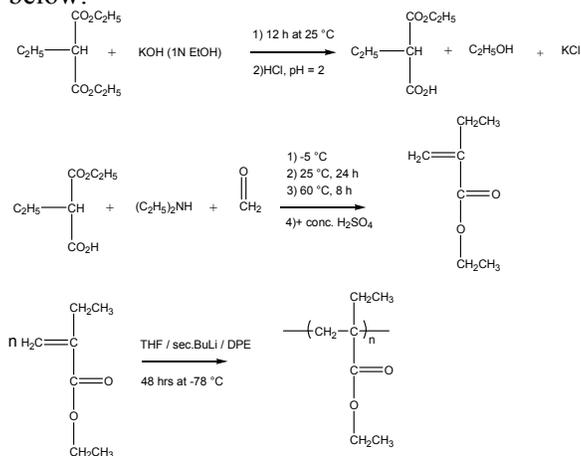


Composition:

$M_n \times 10^3$	PDI
38.0	1.4

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:



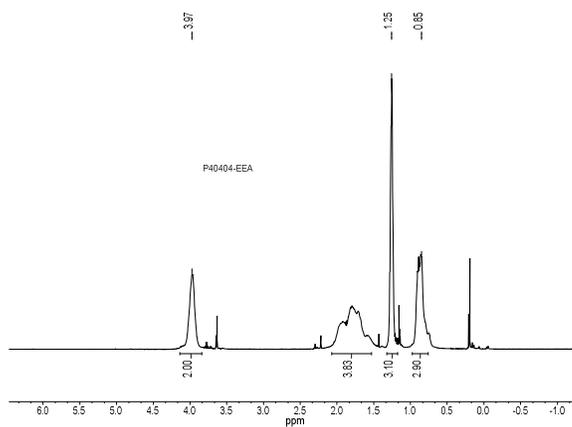
Characterization:

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.

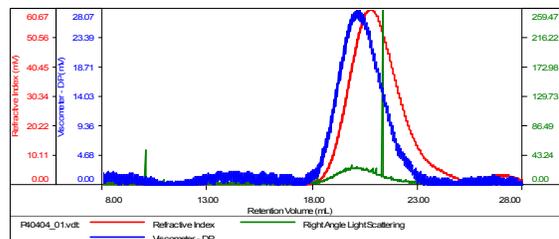
¹HNMR spectrum of homopolymer:



SEC elugram of Homopolymer:

P40404-EEA

Concentration (mg/mL)	5.2469
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-Nb(2016-6-0000).vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mh (Da)	Mw (Da)	Mw/Mh	IV (dL/g)	Mp (Da)
P40404_01.vct	38,114	56,084	1.471	0.3274	46,508