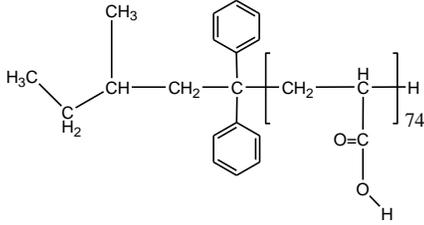


Sample Name: Poly (Acrylic acid)

Sample #: P11382-AA

Structure:

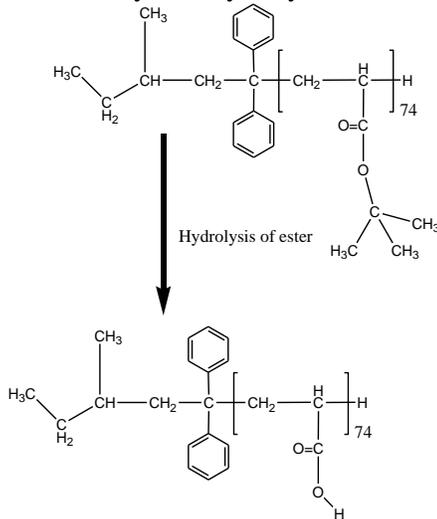


Composition:

Mn x 10 ³	Mw/Mn (PDI)
7.7	1.5

Synthesis Procedure:

By anionic living polymerization of tert.butylacrylate followed by acid hydrolysis of tert.butyl ester to acid.



Ref: for details : R. Fayt, R. Forte, C. Jacobs, R. Jerome, T. Ouhadi, Ph. Teyssie and S. K. Varshney, *Macromolecules*, 1987, 20, 1442-1444

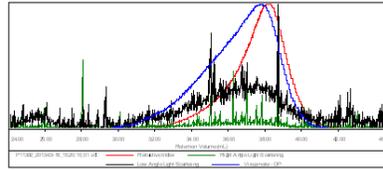
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF for poly tert butyl acrylate. 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 model 270 from Viscotek Co.

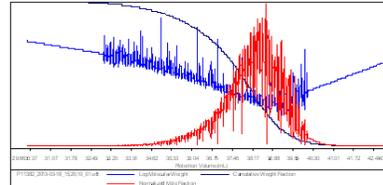
Solubility: Polymer is soluble in methanol and ethanol.

Sample ID: P11382-tBuA

Concentration (mg/mL)	36.8074
Sample dH ₂ O (mL/g)	0.0612
Method File	P11382-AA-2019-0002.icm
Column Set	3x PL 1110-0300
System	System 1

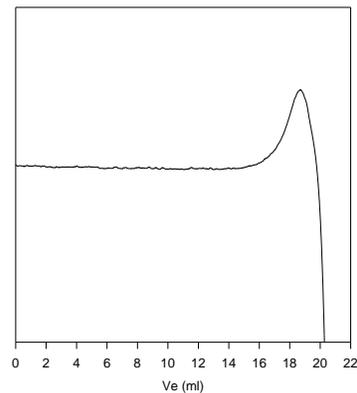


Sample	Mn	Mw	Mp	Mw/Mn	IV
P11382_2019-03-18_15:30:10_01.vdt	13,727	21,574	8,276	1,572	0.1263



SEC analysis in H₂O using an aqueous buffer (NaHCO₃ 0.05 M, NaNO₃ 0.1 M, triethanolamine 0.02

P11382-tBuA



Size Exclusion Chromatography of the polymer carried out in H₂O:

PAA: Mn 7,700 Mw: 11,500 Mw/Mn 1.5