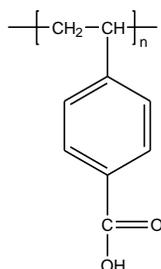


Sample Name: Poly(4-vinyl benzoic acid)

Sample #: P42454AA-VBA

Structure:

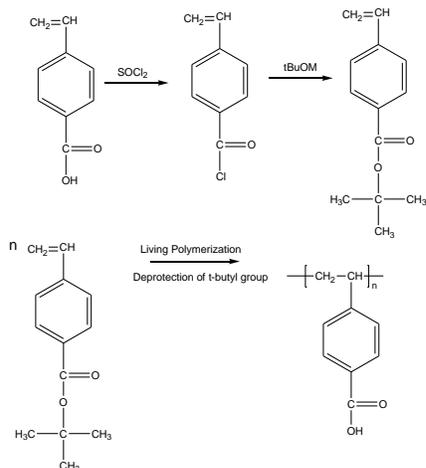


Composition:

Mn x 10 ³	PDI
1.0	1.2

Synthesis Procedure:

Poly(4-vinyl benzoic acid) is synthesized by making the t-butyl vinylbenzoate monomer followed by polymerization and hydrolysis of the t-butyl ester group. The reaction scheme is shown below.



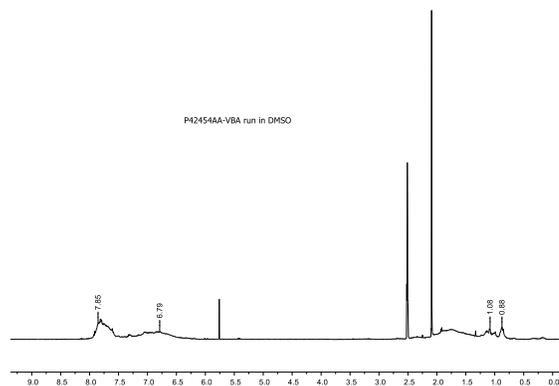
Characterization:

The molecular weight and polydispersity index (PDI) of poly (t-butyl vinylbenzoate) are obtained by size exclusion chromatography and FTIR data analysis. The molecular weight of Poly (4-vinyl benzoic acid) is calculated from poly (t-butyl vinylbenzoate).

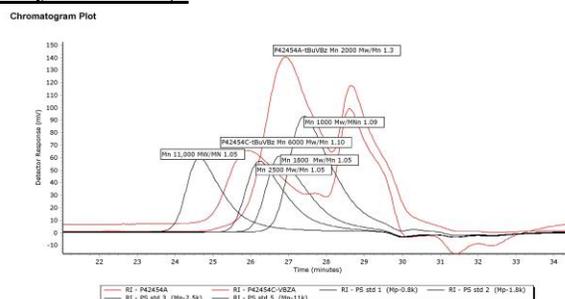
Solubility:

Polymer is soluble in DMF, MeoH and EtOH. It precipitates from water and hexanes.

¹H-NMR spectrum of the product:



SEC elugram of Homopolymer poly (t-butyl vinylbenzoate):



After hydrolysis of tert. Butyl ester Mn of Poly Vinyl benzoic acid : 1,000

FTIR spectrum of the product:

