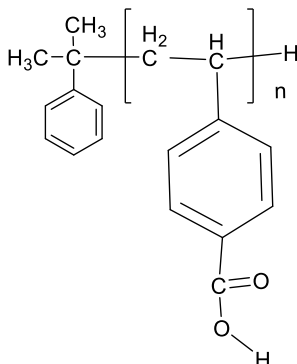


Sample Name: Poly(4-vinyl benzoic acid)

Sample #: P43062-VBA

Structure:



Composition:

Mn x 10 ³	PDI
3.1	1.24
Traces of unreacted monomer	> 0.1%
Presence of unhydrolyzed tert Butyl ester	>1%

Synthesis Procedure:

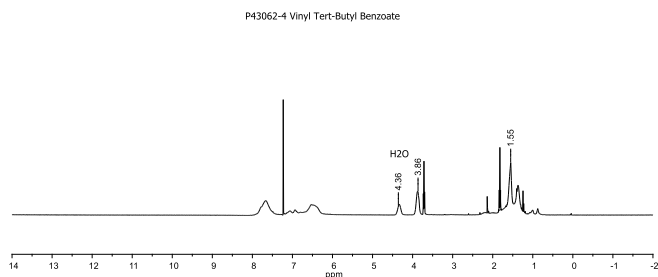
Using cumyl potassium initiator and polymerization at -95 oC.

Poly(4-vinyl benzoic acid) is synthesized by making the 4-t-butyl vinyl Benzoate monomer followed by polymerization and hydrolysis of the t- butoxy group.

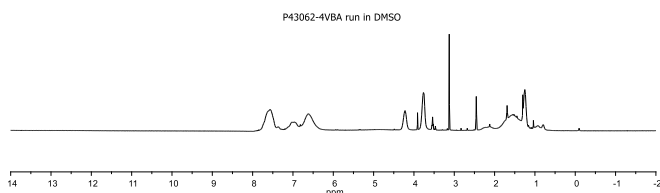
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR data analysis.

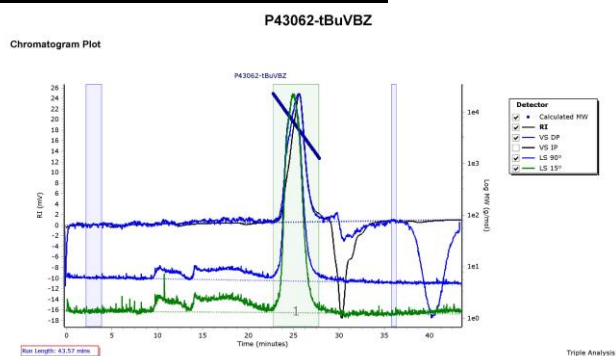
¹H-NMR spectrum of Poly 4-tert.Butyl Benzoate



¹H-NMR spectrum of Poly 4-Vinyl Benzoic acid:



SEC elugram of Homopolymer:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
1	4448	4337	5382	6587	7932	4215	1.241

After Hydrolysis of ester to COOH Mn:3,100

FT-IR spectrum:

