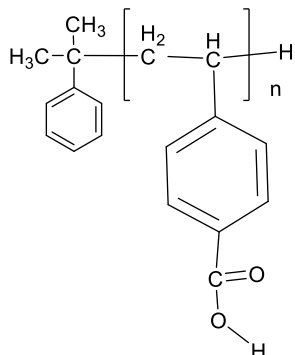


**Sample Name: Poly(4-vinyl benzoic acid)**

**Sample #: P43045-VBA**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
7.0	1.06
Traces of unreacted monomer	> 0.1%
Presence of unhydrolyzed tert Butyl ester	>1%

**Synthesis Procedure:**

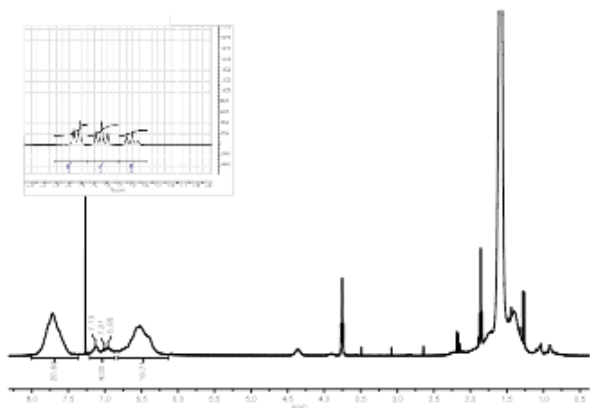
Using cumyl potassium initiator and polymerization at -95 °C.

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.

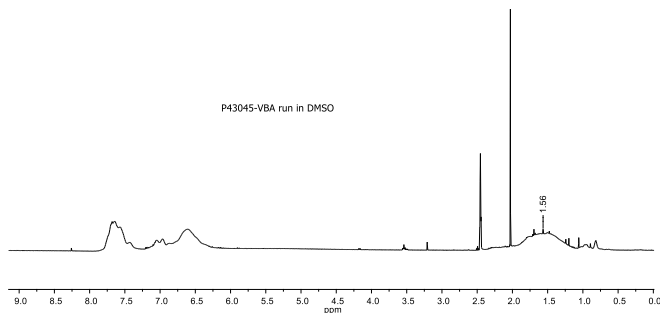
**Characterization:**

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

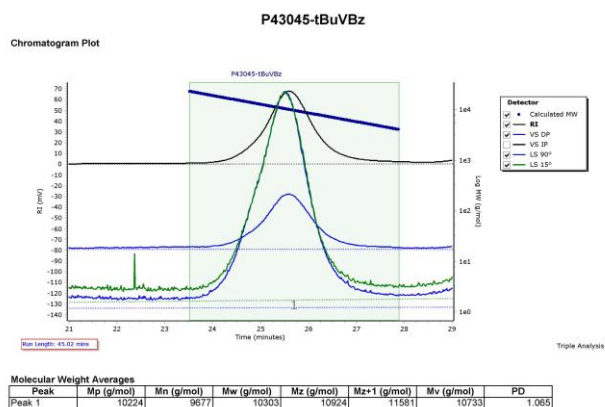
**<sup>1</sup>H-NMR spectrum of Poly 4-tert.butyl Vinylbenzoate:**



**<sup>1</sup>H-NMR spectrum of Poly 4-Vinyl Benzoic acid:**



**SEC elugram of Homopolymer:**



After Hydrolysis of ester to COOH Mn:7,000

**FT-IR spectrum:**

