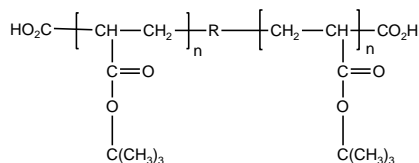


Sample Name:

**$\alpha$ - $\omega$ - Dicarboxy Terminated Poly(t-butyl acrylate)**

Sample #: **P8819-tBuA2COOH**

**Structure:**

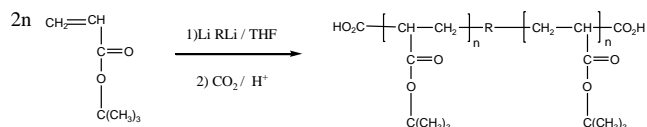


**Composition:**

Mn x 10 <sup>3</sup>	PDI	COOH functionality %
24.0	1.14	1.9

**Synthesis Procedure:**

Carboxy Terminated Poly(t-butyl acrylate) is synthesized by living anionic polymerization of methyl methacrylate using a bifunctional initiator (oligomer  $\alpha$ -methylstyrene lithium) in THF followed by termination with dry ice.



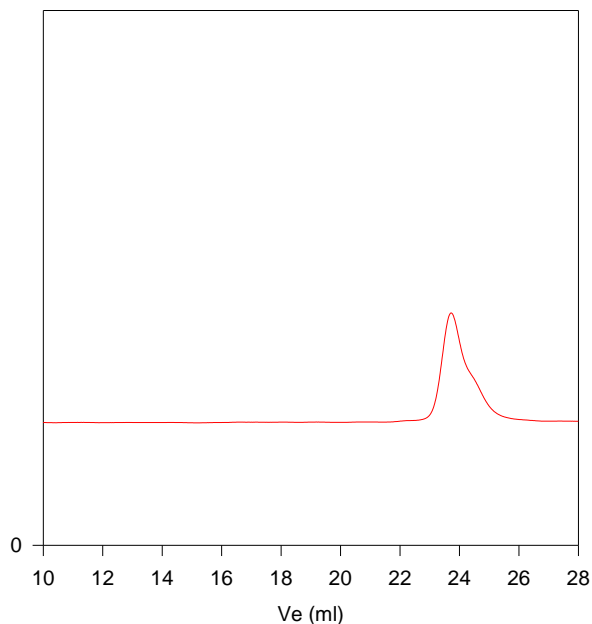
**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) before inclusion of the CO<sub>2</sub>H function using a Varian liquid chromatograph equipped with a UV and refractive index detector. The functionality of polymer was determined by the titration with NaOH, using phenolphthalein as the indicator.

**Solubility:** Soluble in THF, CHCl<sub>3</sub>.

SEC of Sample:

**P8819-tBuA2COOH**



Size exclusion chromatography of  $\alpha$ - $\omega$  dicarboxy terminated poly(tert.butylacrylate) (before terminating reaction with CO<sub>2</sub>).

M<sub>n</sub>=24,000, M<sub>w</sub>=27,400 PI=1.14, functionality=1.90