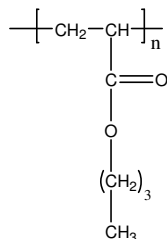


Sample Name: **Poly(n-Butyl Acrylate)**

Sample #: **P8257-nBuA**

**Structure:**

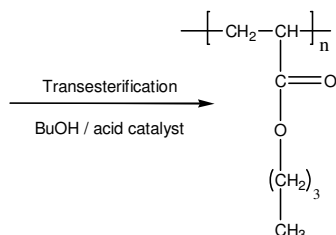
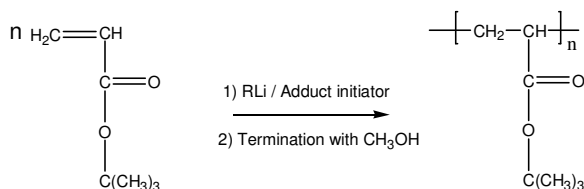


**Composition:**

$M_n \times 10^3$ (g/mol)	$M_w/M_n$
1,128.0	1.4

**Synthesis:**

Poly(n-butyl acrylate) was obtained by living anionic polymerization of t-butyl acrylate followed by transesterification with n-butanol in the presence of catalyst.<sup>1-4</sup>



**Solubility:**

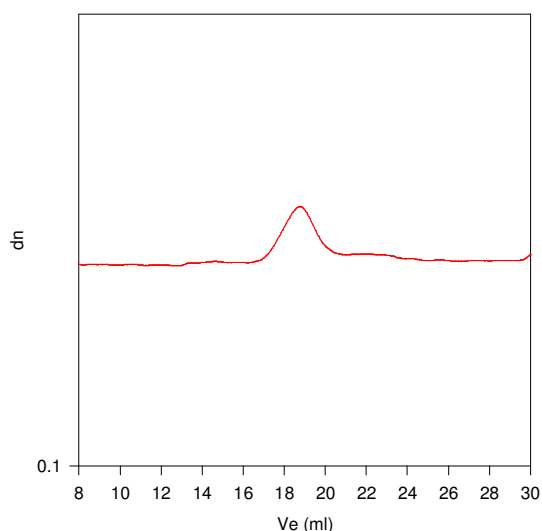
Poly(n-butyl acrylate) is soluble in THF, toluene and chloroform; and it precipitates from ethanol and methanol containing 10–15% water.

**Characterization:**

The molecular weight and polydispersity index ( $M_w/M_n$ ) were determined by size exclusion chromatography (SEC) using THF as an eluent. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**SEC elugram of poly(n-butyl acrylate):**

**P8257-nBuA**



**References:**

1. Ph. Teyssie, Ph. Bayard, R. Jerome, **S. K. Varshney**, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.
2. R. Fayt, R. Forte, C. Jacobs, R. Jerome, T. Ouhadi, Ph. Teyssie and **S. K. Varshney**, *Macromolecules*, 1987, 20, 1442-1444.
3. Jerome, R. Forte, **S. K. Varshney**, R. Fayt, and Ph. Teyssie, "The Anionic Polymerization of Alkylacrylates: A Challenge" in the Recent Advances in Mechanistic and Synthetic Aspects of Polymerization: M. Fontanille and A. Guyot Ed., NATO ASI Series C 215, 101 (1987), CA Vol. 108, 12, 094992.
4. Ph. Teyssie, R. Fayt, C. Jacobs, R. Jerome, L. Leemans, and **S. K. Varshney** *Am. Chem. Soc., Polym. Prepr.* 1988, 28, 2, 52-53.