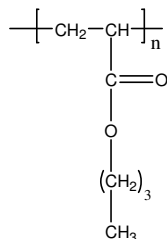


Sample Name: **Poly(n-Butyl Acrylate)**

Sample #: **P14706A-nBuA**

Structure:

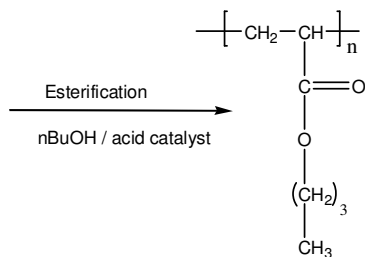
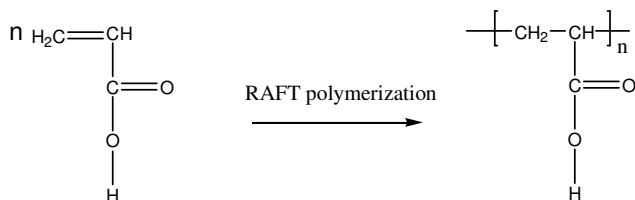


Composition:

$M_n \times 10^3 \text{ (g/mol)}$	M_w/M_n
28.0	1.2

Synthesis:

Poly(n-butyl acrylate) was obtained by RAFT polymerization of acrylic acid, followed by esterification with n-butanol in presence of catalyst.



Solubility:

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

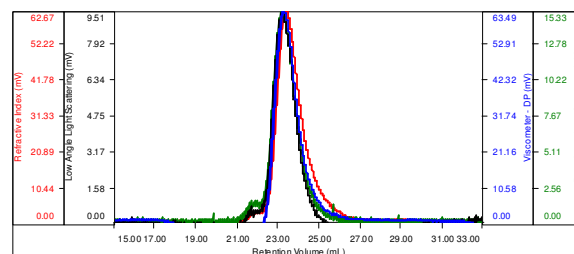
Characterization:

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):

Sample ID: P14706A-nBuA

Concentration (mg/mL)	2.7477
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-Feb25-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	M_n	M_w	M_p	M_w/M_n	IV
P14706A-nBuA_01.vdt	27,882	33,493	35,105	1.201	0.6082

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.
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