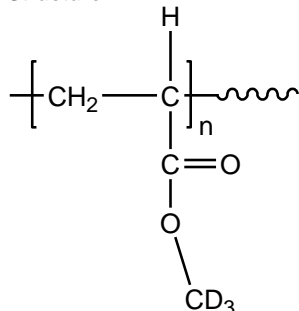


**Sample Name: Deuterated  
Poly(methylacrylate) Ester group  
deuterated**

**Sample #: P10806-d3MA**

**Structure:**



**Composition:**

| $M_n \times 10^3$ | PDI |
|-------------------|-----|
| 30.0              | 1.6 |

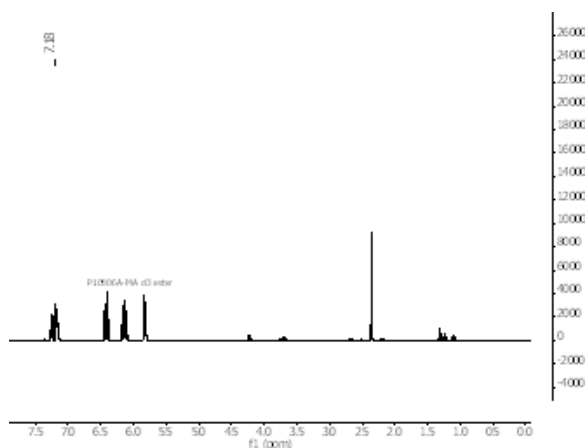
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**Solubility:**

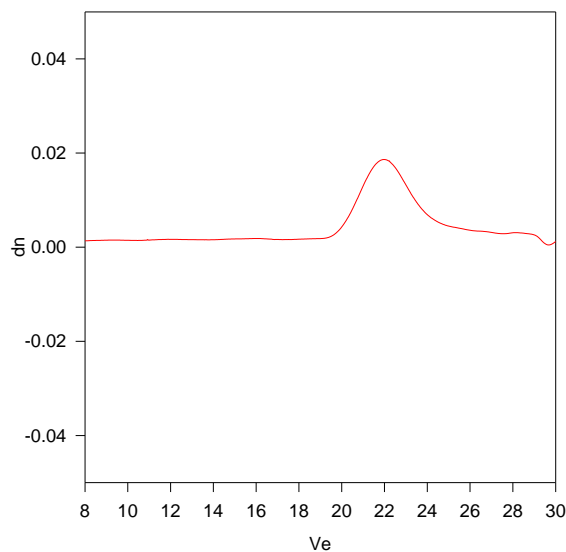
Deuterated Poly(methyl acrylate) is soluble in THF/CHCl<sub>3</sub>, Toluene.

**HNMR of the monomer:**



**SEC of Sample:**

**P10806-d3PMA (ester group deuterated)**



Size Exclusion Chromatography of Poly(methyl acrylate-d3)

$M_n=30,000$ ,  $M_w=48,000$ ,  $M_w/M_n=1.6$

**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