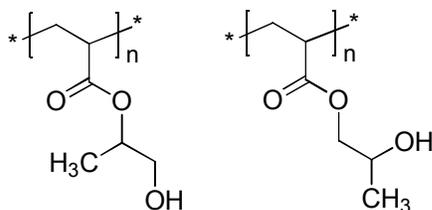


Sample Name: Poly(2-hydroxypropyl acrylate)
(mixture of isomers)

Sample #: P2373-HPA

Structure:



(mixture of isomers)

Composition:

$M_n \times 10^3$	PDI
4.4	3.48

Synthesis Procedure:

Poly(hydroxypropyl acrylate) was obtained by living anionic polymerization of trimethylsiloxypropyl acrylate followed by deprotection of the hydroxyl group.

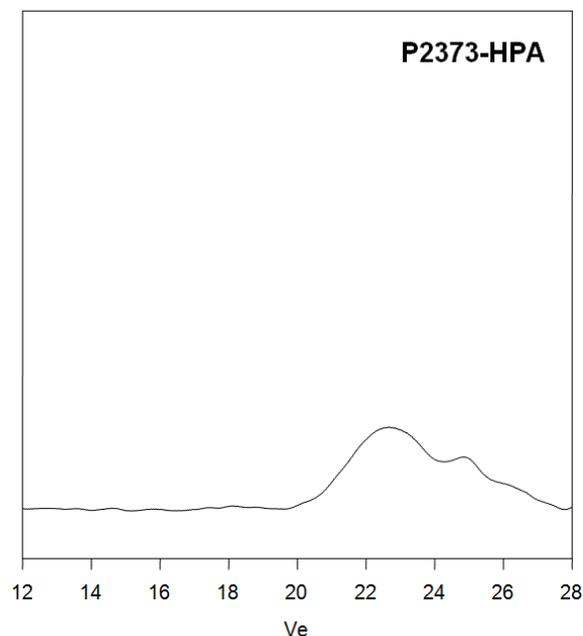
Characterization:

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:

Poly(hydroxypropyl acrylate) is soluble in DMF, THF. Low molecular weight ($M_n < 4K$) polymer is also soluble in cold water. The polymer precipitates from hexane and ether.

SEC of Homopolymer:



Size Exclusion Chromatography of Poly(trimethylsiloxypropyl acrylate):

$M_n = 6,800$; $M_w = 23,700$; PDI=3.48

After deprotection: Poly(hydroxypropyl acrylate)

$M_n = 4,400$; $M_w = 15,300$; $M_w/M_n = 3.48$