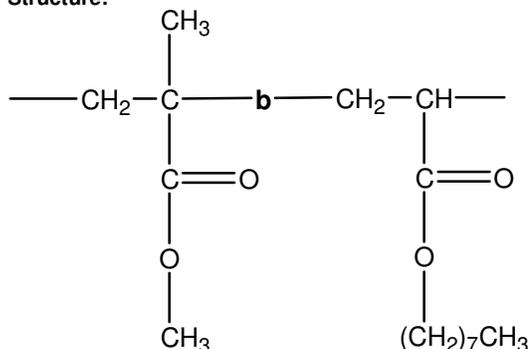


Sample Name: Poly(methyl methacrylate-b-octyl acrylate)

Sample #: P8001-MMAOCA

Structure:



Composition:

$M_n \times 10^3$ PMMA-b-POCA	PDI
65.0-b-175.0	1.18

Synthesis Procedure:

Poly(methyl methacrylate-b-octyl acrylate) is prepared by living polymerization with sequence addition of monomer. Process is proprietary.

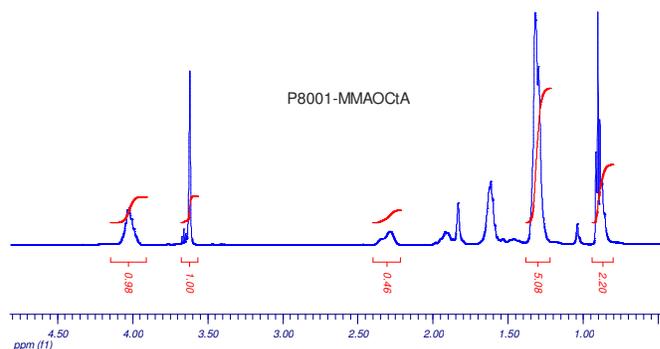
Characterization:

An aliquot of the anionic poly(methyl methacrylate) block was terminated before addition of octyl acrylate and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the octyl acrylate protons at 4.0 ppm with the peak area of the methyl methacrylate protons at 3.6 ppm. Copolymer PDI is determined by SEC.

Solubility:

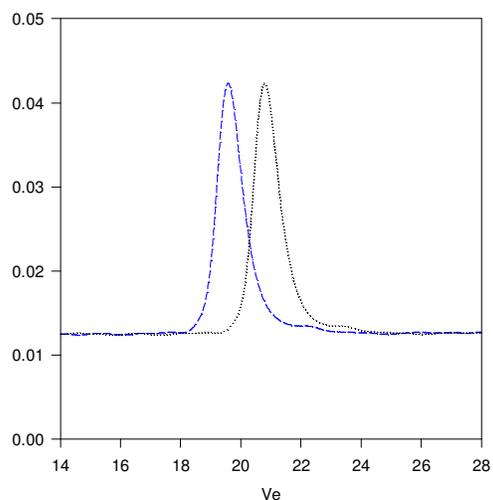
Poly(methyl methacrylate-b-octyl acrylate) is soluble in THF, CHCl₃, toluene and dioxane. The polymer precipitates from hexanes, methanol and ethanol.

H-NMR Spectrum of the block copolymer:



SEC of the block copolymer:

P8001-MMAOCA



Size Exclusion Chromatography :

--- Poly methylmethacrylate, $M_n=65000$ $M_w/M_n=1.18$

..... Block Copolymer PMMA(65000)-OCA(175,000), $M_w/M_n=1.18$