

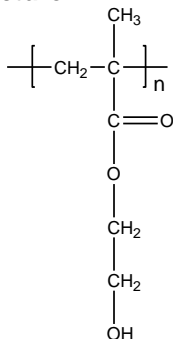
Sample Name:

Poly(2-hydroxyethyl methacrylate)

Sample #: **P18899CC-HEMA**

(synthesized by anionic polymerization of HEMA-TMS monomer)

Structure:



Composition:

$\text{Mn} \times 10^3$	PDI
8.5	1.15
Microstructure % S;H:I	53:41;6

Synthesis Procedure:

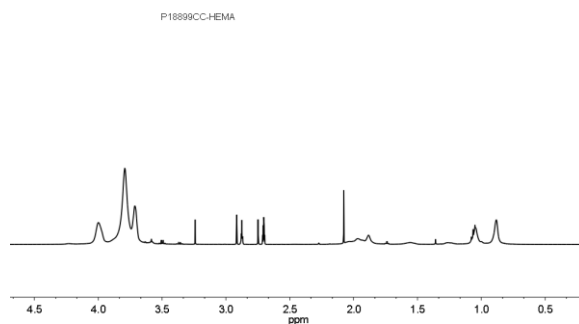
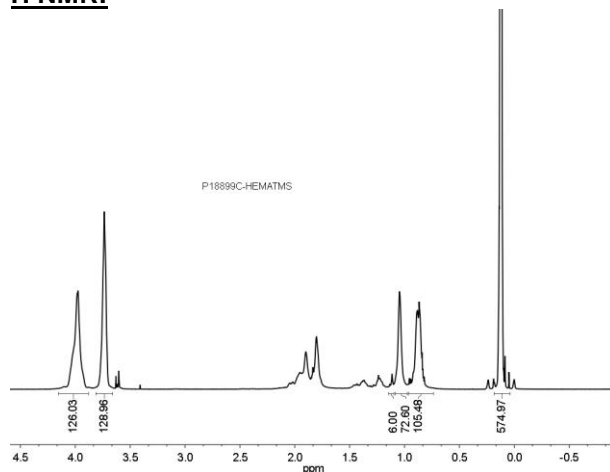
Poly(2-hydroxyethyl methacrylate) is synthesized by living polymerization (anionic or by GTP process) of 2-(trimethylsilyl) ethyl methacrylate followed by deprotection of hydroxyl group under acidic conditions.

Characterization:

The molecular weight and polydispersity index (PDI) of Poly(2-hydroxyethyl methacrylate) are obtained by size exclusion chromatography in DMF at 60°C using TDA Viscotek triple detector..

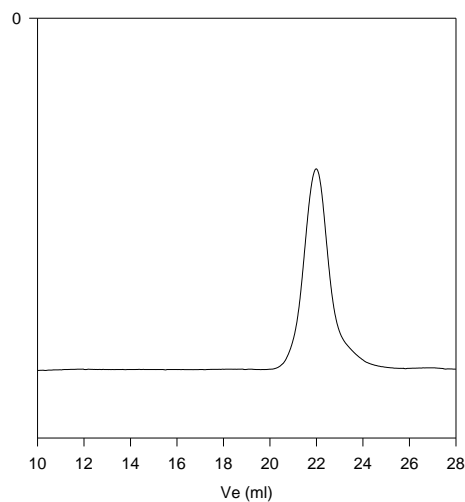
Solubility: Poly(2-hydroxyethyl methacrylate) is soluble in ethanol, DMF etc. it is insoluble in hexane, toluene, THF, and water.

H NMR:



SEC of Homopolymer:

P18899C-HEMATMS



Size exclusion chromatograph of Poly(2-trimethyl siloxylethylmethacrylate):
 $M_n=13,000$, $M_w=15,000$, $PI=1.15$

M_n : 8,500 M_w/M_n 1.15