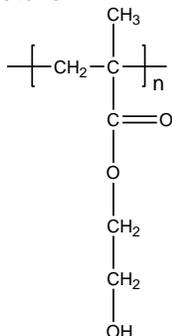


Sample Name: **Poly(2-hydroxyethyl methacrylate)**

Sample #: **P18899AA-HEMA**  
 (synthesized by anionic polymerization of HEMA-TMS monomer)

Structure:



Composition:

Mn x 10 <sup>3</sup>	PDI
2.5	1.2
Microstructure % S:H:I	53:41:6

Synthesis Procedure:

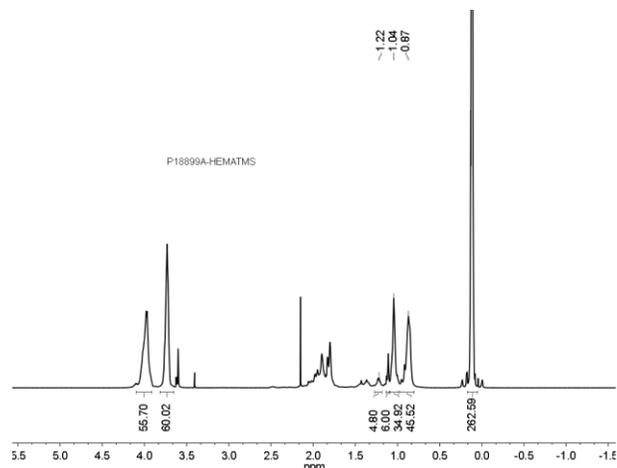
Poly(2-hydroxyethyl methacrylate) is synthesized by living polymerization (anionic or by GTP process) of 2-(trimethylsilyl) ethyl methacrylate followed by deprotection of hydroxyl group under acidic conditions.

Characterization:

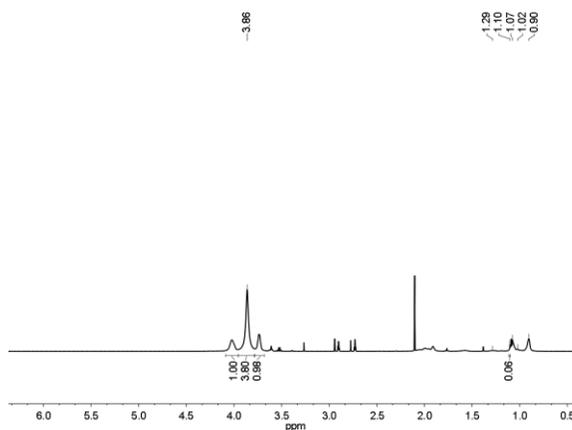
The molecular weight and polydispersity index (PDI) of Poly(2-hydroxyethyl methacrylate) are obtained by size exclusion chromatography in DMF at 60°C using TDA Viscotek triple detector..

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

**HNMR of the Polymer in DMF**

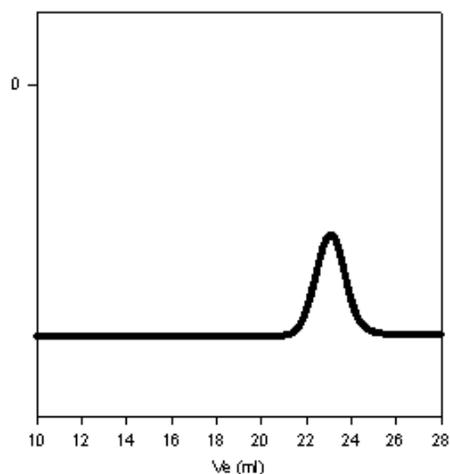


**PHEMA run in DMF:**



**SEC:**

**P18899A-HEMATMS**



Size exclusion chromatograph of Poly(2-trimethyl siloxyethylmethacrylate):  
 M<sub>n</sub>=5,500, M<sub>w</sub>=6,500, PI=1.2

HEMA : MN 2500 Mw/MN 1.2