

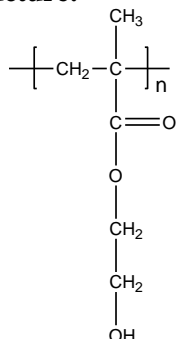
Sample Name:

**Poly (2-hydroxyethyl methacrylate)**

Sample #: **P10839-HEMA**

**(Synthesized by anionic polymerization of HEMA-TMS monomer)**

**Structure:**



**Composition:**

$\text{Mn} \times 10^3$	PDI
13.0	1.2
Microstructures: S: H: I	69:26:5

**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.

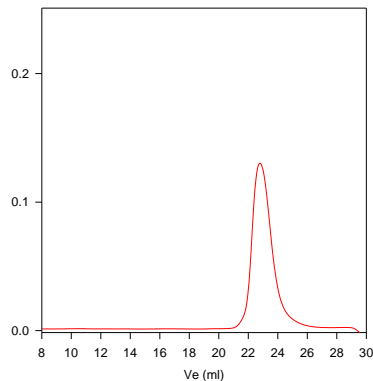
**Characterization:**

The molecular weight and polydispersity index (PDI) of Poly (2-hydroxyethyl methacrylate) are obtained by size exclusion chromatography.

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

**SEC of Homopolymer:**

**P10839-HEMA-TMs (OH protected monomer)**



Size exclusion chromatograph of Poly(2-trimethyl siloxylethylmethacrylate):  
 $M_n=20,000$ ,  $M_w=24,000$ ,  $PI=1.2$   
After deprotecting OH group:  
 $M_n$ : 13,000,  $M_w$ : 15,500  $M_w/M_n$ : 1.2

