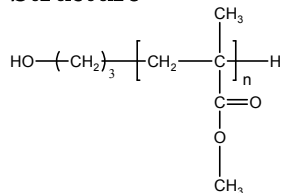


Sample Name: Hydroxy Terminated
Poly(methyl methacrylate)

Sample #: P10466-MMAOH

Structure:

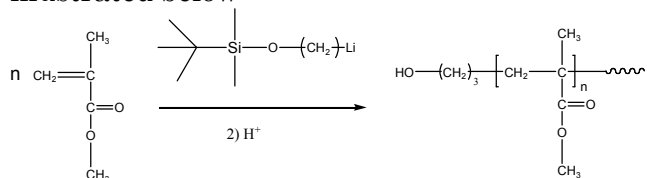


Composition:

$M_n \times 10^3$	PDI
45.0	1.15
T_g (°C)	125 °C

Synthesis Procedure:

Hydroxyl terminated poly(methyl methacrylate) was prepared by living anionic polymerization using a hydroxyl protected initiator. The scheme of the reaction is illustrated below:



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.

Thermal Analysis:

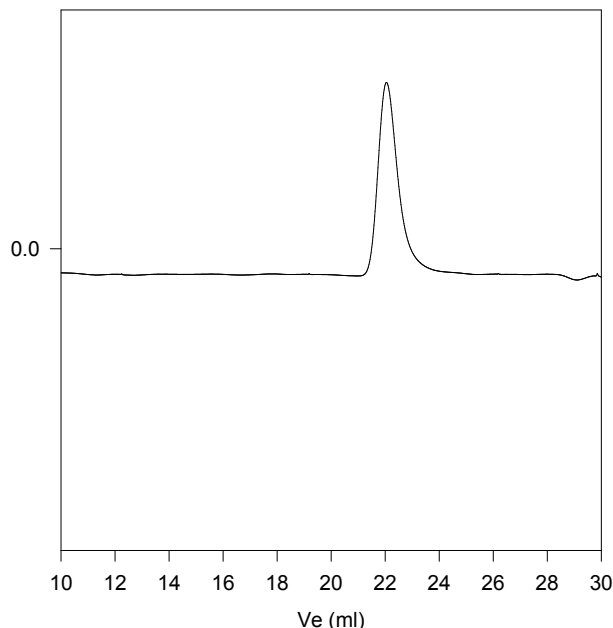
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) of the sample has been considered.

Solubility:

Polymer is soluble in DMF, THF, toluene and CHCl_3 . It precipitates from methanol, ethanol, water and hexanes

SEC of Sample:

P10466-MMAOH



Size Exclusion Chromatogram of polymer:
— $M_n=45,000$, $M_w=52,000$, $M_w/M_n=1.15$
(OH functionality by titration: >98%)

DSC thermogram for the sample:

