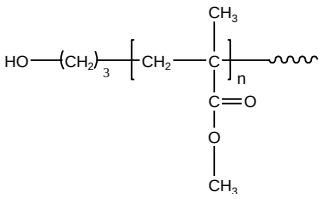
Sample Name: **Hydroxy Terminated Poly (methyl methacrylate)**

Sample #: **P1763-MMAOH**

Structure:

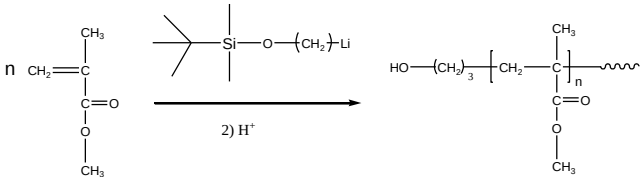


Composition:

$Mn \times 10^3$	PDI
6.3	1.06
T_g (^oC)	85

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.

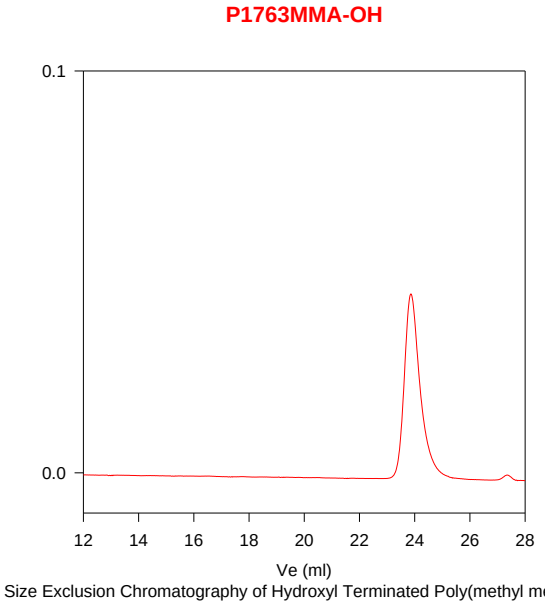
Thermal Analysis:

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10^oC/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:



Size Exclusion Chromatography of Hydroxyl Terminated Poly(methyl methacrylate):

M_n=6300, M_w=6700, PI=1.06

DSC thermogram for the polymer: