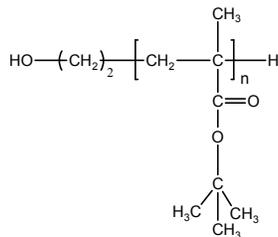


### Sample Name:

Hydroxy Terminated Poly(t-butyl methacrylate)

Sample #: P1649-tBuMAOH

### Structure:

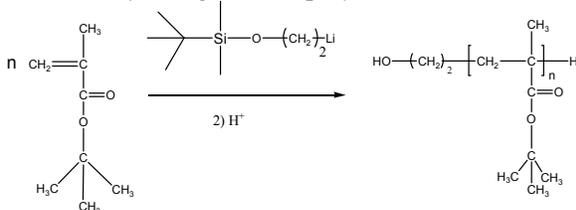


### Composition:

Mn x 10 <sup>3</sup>	PDI	OH end group functionality	T <sub>g</sub> (°C)
11.0	1.23	>85 %	48

### Synthesis Procedure:

OH terminated poly(t-butyl methacrylate) is synthesized by living anionic polymerization.



### Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC).

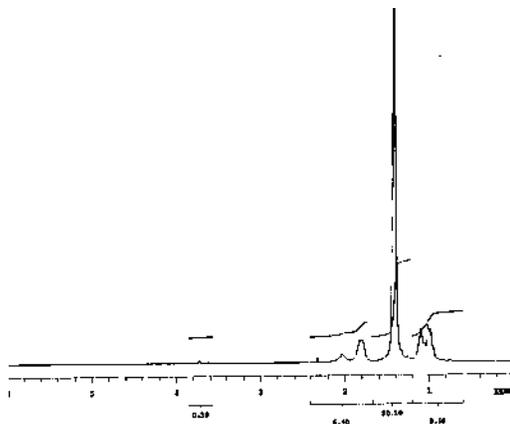
### Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

### Solubility:

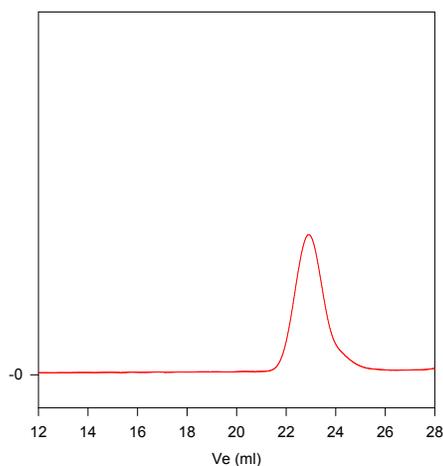
Polymer is soluble in THF, CHCl<sub>3</sub>, Toluene, dioxin and precipitated out from methanol/water or in cold hexane.

### HNMR of the polymer:



### SEC of Sample:

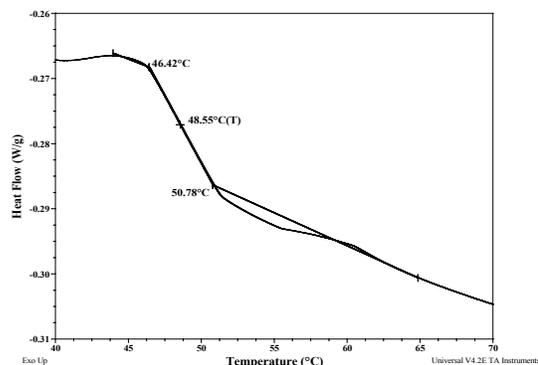
P1649-tBMAOH



Size exclusion chromatography of Hydroxy Terminated poly(t-butyl methacrylate):

M<sub>n</sub>=11000, M<sub>w</sub>=13500, PI=1.23

### DSC thermogram for the sample:



### References for further information:

P. Rempp, Y. Gnanou, R. Fayt, C. Jacobs, Ph. Teyssie and S. K. Varshney Eur. Pat. Appl. Mar. 27, 1991. Eur. Pat. 419314 Patent assignees- Atochem S.A. France. CA Vol. 115, 06, 050585.

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S. K. Varshney, Z. Gao, Xing Fu Zhong, A. Eisenberg Effect of Lithium Chloride on the "Living" Polymerization of tert-Butylmethacrylate and Polymer Microstructure Using Monofunctional Initiators" Macromolecules, 1994, 27, 1076.