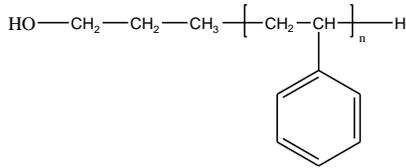


**Sample Name:**  $\alpha$ -Hydroxy Terminated Polystyrene

**Sample #:** P5338-SOH

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
24.0	1.4
$T_g$ ( $^{\circ}\text{C}$ )	84

**Synthesis Procedure:**

$\alpha$ -Hydroxy Terminated Polystyrene was prepared by living anionic polymerization using hydroxyl protected initiator (ethyl-3-lithiopropylacetaldehyde).

**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

**Thermal analysis:**

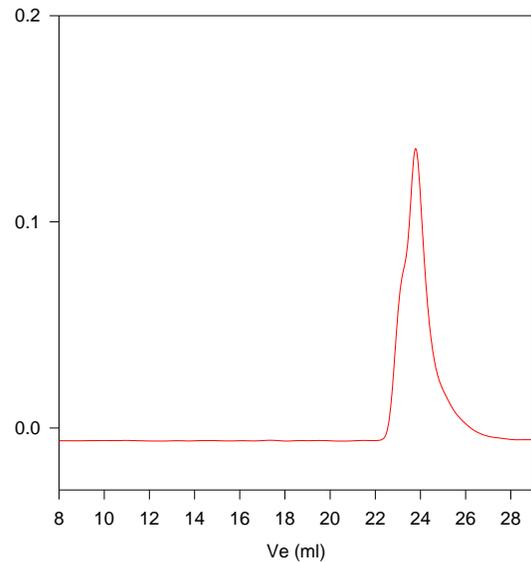
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of  $10^{\circ}\text{C}/\text{min}$ . The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

Polymer is soluble in toluene, THF,  $\text{CHCl}_3$  and can be precipitated in water and cold methanol.

**SEC of Sample:**

P5338-SOH



$M_n=24000$ ,  $M_w=34000$ ,  $PI=1.4$ , functionality>99%

Size exclusion chromatography of  $\alpha$  hydroxy Terminated polystyrene:

**DSC thermogram for the sample:**

