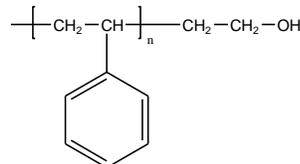


**Sample Name:**  
 **$\omega$ -Hydroxy Terminated Polystyrene**

**Sample #: P9071- SOH**

**Structure:**

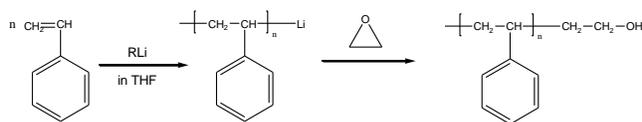


**Composition:**

$M_n \times 10^3$	PDI
65.0	1.20
$T_g$ ( $^{\circ}\text{C}$ )	98

**Synthesis Procedure:**

$\omega$ -Hydroxy terminated Polystyrene was prepared by living anionic polymerization of styrene using a monofunctional initiator in THF followed by termination with ethylene oxide. The scheme of the reaction is illustrated below:



**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:**

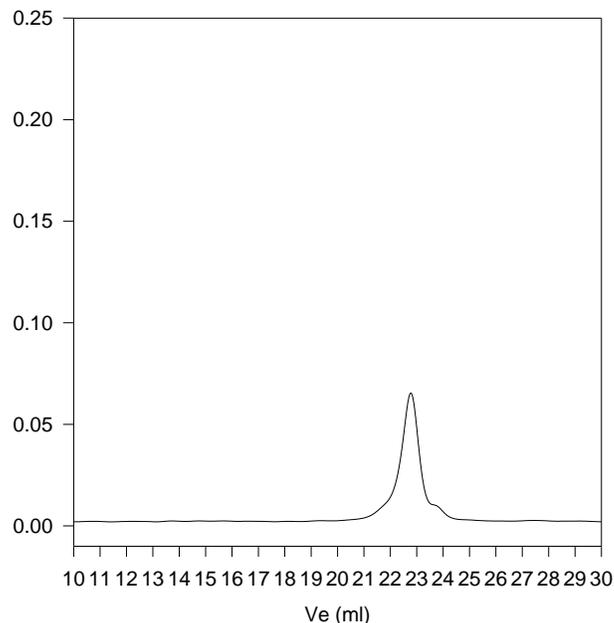
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of  $10^{\circ}\text{C}/\text{min}$ . The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

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

**SEC of Sample:**

**P9071-SOH**



**DSC thermogram for the polymer:**

