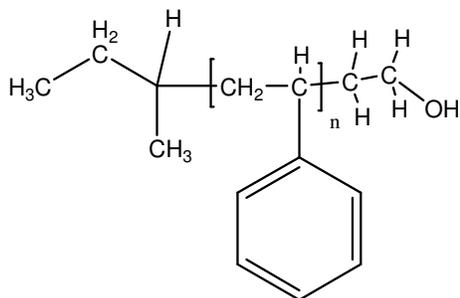


**Sample Name:**  
 $\omega$ -Hydroxy Terminated Polystyrene

**Sample #:** P18875 SOH

**Structure:**



**Composition:**

|                              |      |
|------------------------------|------|
| $M_n \times 10^3$            | PDI  |
| 13.5                         | 1.08 |
| $T_g$ ( $^{\circ}\text{C}$ ) | 80   |

**Synthesis Procedure:**

$\omega$ -hydroxy terminated polystyrene was prepared by living anionic polymerization using OH protected initiator.

**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 solution 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.

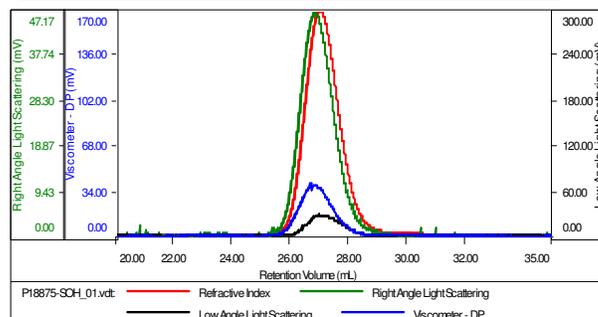
**Solubility:**

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

**SEC of Sample:**

**Sample ID:** P18875-SOH

|                       |                          |
|-----------------------|--------------------------|
| Concentration (mg/mL) | 5.0210                   |
| Sample dn/dc (mL/g)   | 0.1850                   |
| Method File           | PS00K-0903-2014-0000.vcm |
| Column Set            | 3x PL 1113-6300          |
| Solvent               | THF                      |



| Sample            | MW Number Average (Da) | MW Weight Average (Da) | MW at Peak (Da) | Polydispersity | Intrinsic Viscosity (dL/g) |
|-------------------|------------------------|------------------------|-----------------|----------------|----------------------------|
| P18875-SOH_01.vdt | 13,490                 | 14,628                 | 14,053          | 1.084          | 0.1923                     |

**DSC thermogram for the sample:**

