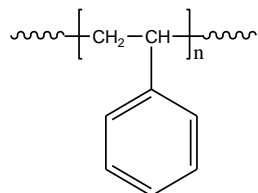


**Sample Name: Polystyrene-Broad Distribution**

**Sample #: P9251-S**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
1056.0	1.8

**Synthesis Procedure:**

Polystyrene is obtained by free radical polymerization of styrene.

**Characterization:**

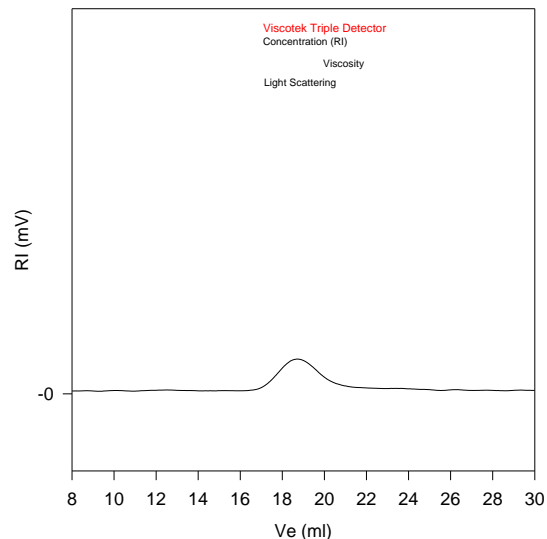
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**Solubility:**

Polystyrene is soluble in DMF, THF, toluene and  $CHCl_3$ . It precipitates from methanol, ethanol, water and hexanes.

**SEC of Homopolymer**

**P9251-S**



Size Exclusion Chromatography of polystyrene;

—  $M_n = 1056,000$ ,  $M_w = 1,800,000$ ,  $M_w/M_n = 1.8$

$T_g$  of polystyrene as function of molecular weight

