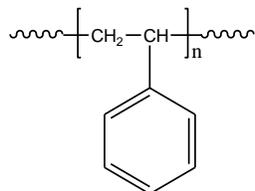


**Sample Name: Polystyrene-Broad Distribution**

**Sample #: P9251-S**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
1056.0	1.8

**Synthesis Procedure:**

Polystyrene is obtained by free radical polymerization of styrene.

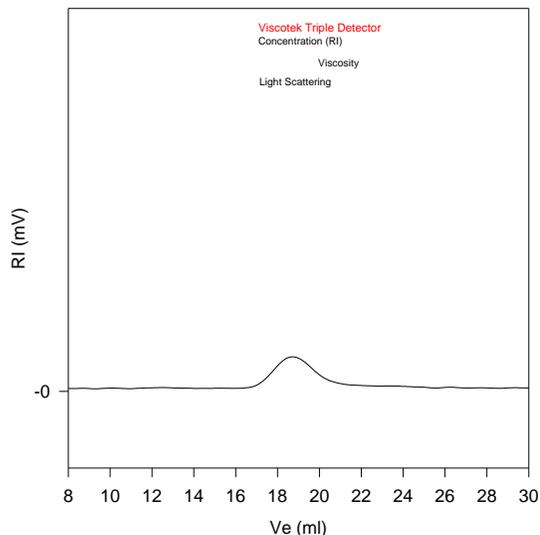
**Characterization:**

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<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

**SEC of Homopolymer P9251-S**



Size Exclusion Chromatography of polystyrene;

— M<sub>n</sub> = 1056,000, M<sub>w</sub> = 1,800,000, M<sub>w</sub>/M<sub>n</sub> = 1.8

T<sub>g</sub> of polystyrene as function of molecular weight

