

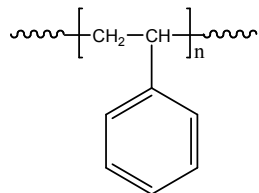
**Sample Name: Polystyrene-Broad  
Distribution**

**SEC of Homopolymer**

**P9261-S**

**Sample #: P9261-S**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
535.0	1.2

**Synthesis Procedure:**

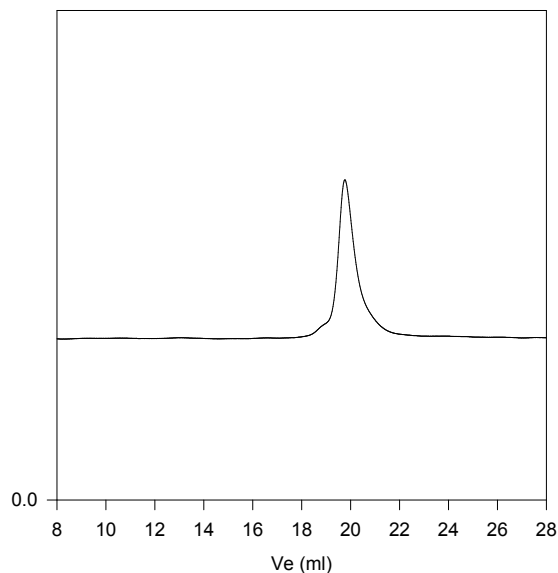
Polystyrene is obtained by free radical polymerization of styrene.

**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.



Size exclusion chromatograph of polystyrene:

M<sub>n</sub>=535,000, M<sub>w</sub>=642,000, PI=1.2

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

