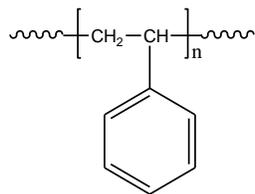


## Sample Name: Polystyrene

Sample #: P9397-S

### Structure:

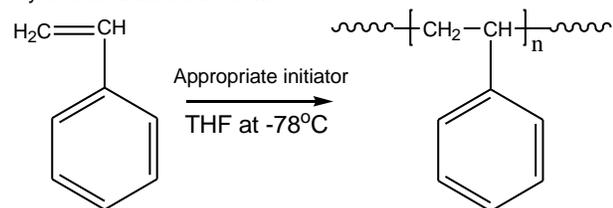


### Composition:

Mn x 10 <sup>3</sup>	PDI
21.5	1.05

### Synthesis Procedure:

Polystyrene is obtained by living anionic polymerization of styrene as illustrated below:



### Characterization:

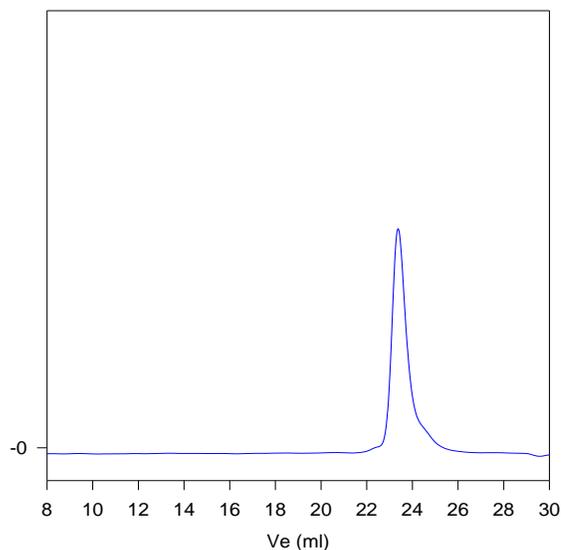
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

P9397-S



Size Exclusion Chromatography of Polystyrene

— P9397-S:  $M_n=21500$ ,  $M_w=22500$ ,  $PI=1.05$