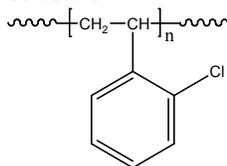


# Sample Name: Poly(2-chloro styrene)

## SEC of Homopolymer:

Sample #: P10337-2CIS

### Structure:

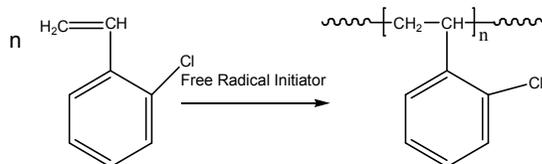


### Composition:

Mn x 10 <sup>3</sup>	PDI
65.0	1.6
Dn/dc in THF at 35 oC	0.1532 ml/g
With respect to Polystyrene	55,000

### Synthesis Procedure:

Poly(2-chloro styrene) is synthesized by controlled radical polymerization of 2-chloro styrene and the reaction scheme is shown below.



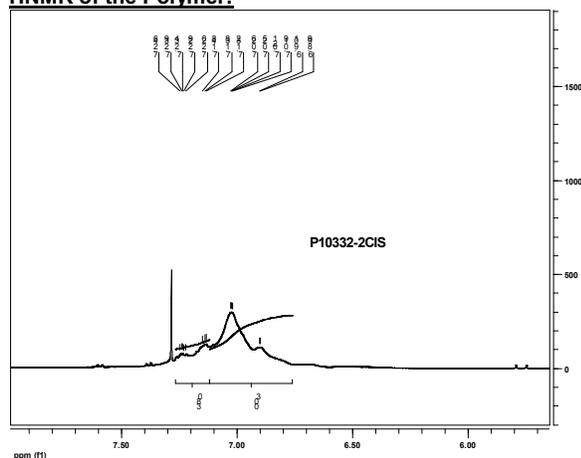
### Characterization:

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.

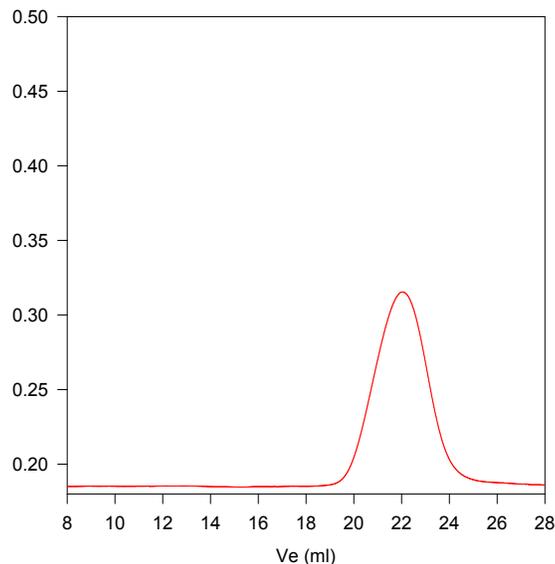
### Solubility:

Poly(2-chloro styrene) is soluble in DMF, THF, toluene and  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes.

### HNMR of the Polymer:



P10337-2CIS



Size exclusion chromatograph of poly(2-chlorostyrene):  
 $M_n=65,000$ ,  $M_w=104,000$ ,  $PI=1.6$