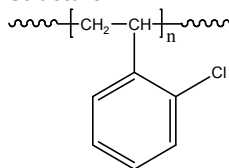


**Sample Name:** Poly(2-chloro styrene)

**SEC of Homopolymer:**

**Sample #:** P10337-2CIS

**Structure:**

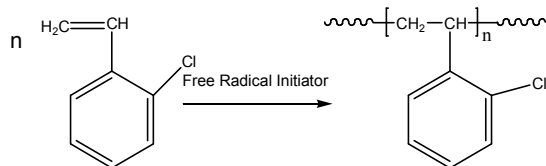


**Composition:**

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.



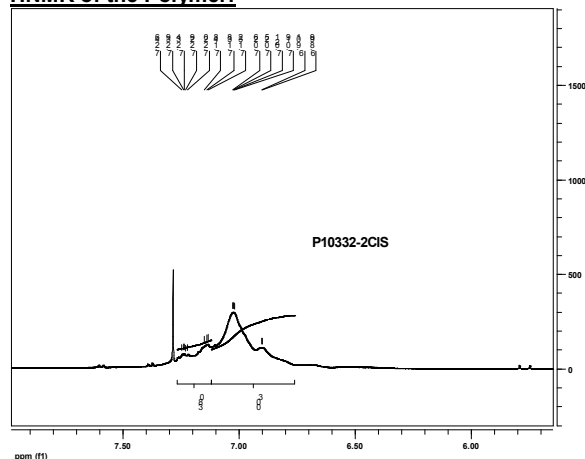
**Characterization:**

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.

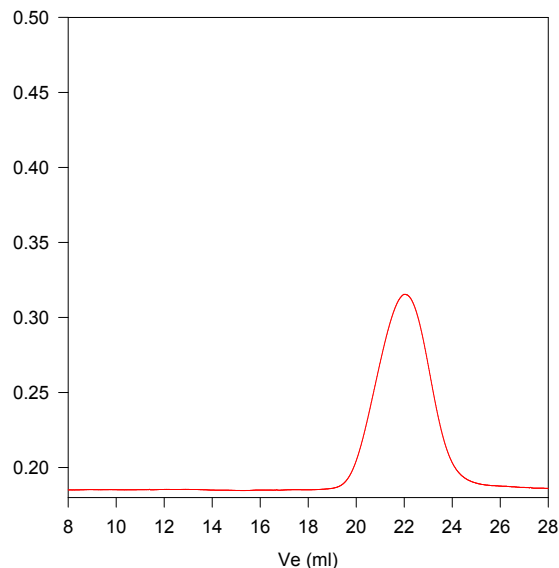
**Solubility:**

Poly(2-chloro styrene) is soluble in DMF, THF, toluene and  $CHCl_3$ . It precipitates from methanol, ethanol, water and hexanes.

**HNMR of the Polymer:**



**P10337-2CIS**



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