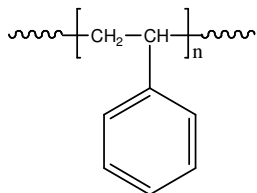


Sample Name: **Polystyrene**

Sample #: **P18979-S**

Structure:

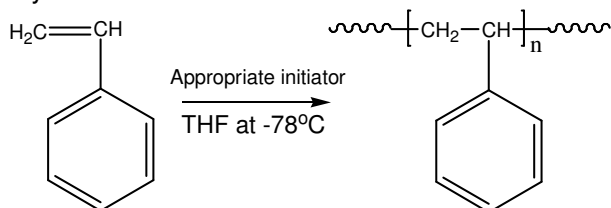


Composition:

| | |
|----------------------|-----|
| Mn x 10 ³ | PDI |
| 596.0 | 2.0 |

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.

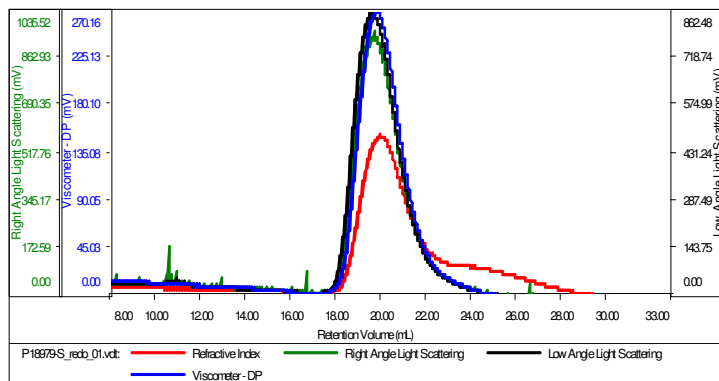
Solubility:

Polystyrene is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of the polymer:

Sample ID: P18979-S

| | |
|-----------------------|---------------------------|
| Concentration (mg/mL) | 0.8732 |
| Sample dn/dc (mL/g) | 0.1850 |
| Method File | PS80K-NOV27-2014-0000.vom |
| Column Set | 3x PL 1113-6300 |
| Solvent | THF |



| Sample | MW Number Average (Da) | MW Weight Average (Da) | MW at Peak (Da) | Polydispers | Intrinsic Viscosity (dL/g) |
|----------------------|------------------------|------------------------|-----------------|-------------|----------------------------|
| P18979-S_recb_01.vdt | 594,560 | 1.224 e 6 | 1.397 e 6 | 2.059 | 16.4667 |