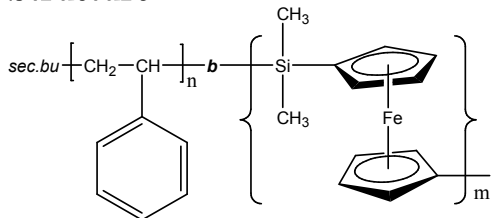


**Sample Name:**  
Poly(styrene-*b*-ferrocenyldimethylsilane)

**Sample #:** P10173-SFES

**Structure:**



**Composition:**

| Mn × 10 <sup>3</sup><br>S- <i>b</i> -FES | Mw/Mn (PDI) |
|--|-------------|
| 65.0- <i>b</i> -24.0                     | 1.12        |

**Synthesis Procedure:**

Poly(styrene-*b*- ferrocenyldimethylsilane) is prepared by anionic living polymerization by successive addition of styrene followed by the addition of **ferrocenyldimethylsilane monomer**.

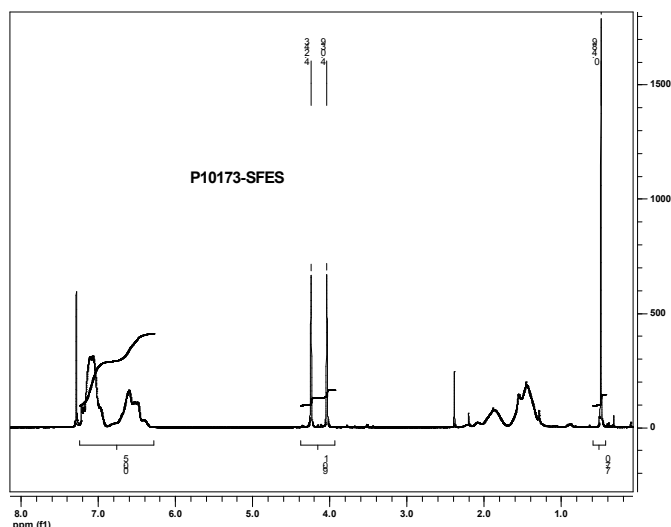
**Characterization:**

An aliquot of the polystyrene block was terminated before addition of hexamethyl cyclotrisiloxane and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the styrene protons at 6.3-7.2 ppm with the peak area of Si(CH<sub>3</sub>) at 0.2ppm.

**Solubility:**

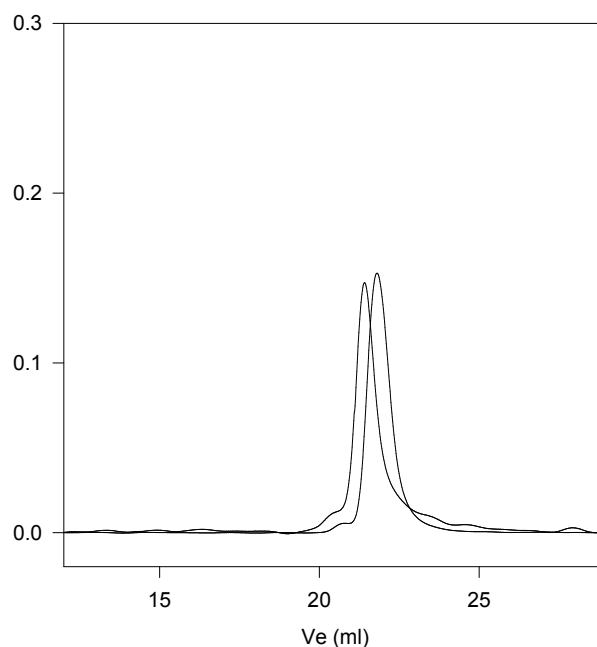
Polymer is soluble in THF, CHCl<sub>3</sub>, Toluene and precipitate out from ether and hexanes.

**<sup>1</sup>H NMR spectrum of the sample:**



**SEC profile of the block copolymer:**

**P10173-SFES**



— Polystyrene, M<sub>n</sub>=65,000 Mw: 71,500 PI=1.10  
— Block Copolymer PS(65,000)-*b*-PFES(24,000), PI=1.12  
Composition from FTIR/HNMR