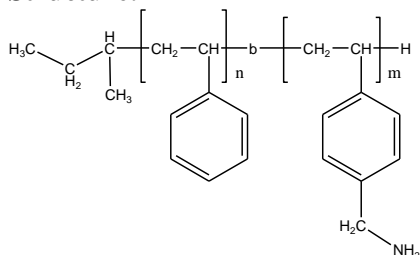


Sample Name:

**Poly(4-amino methyl styrene-b- styrene)**

Sample #: **P11196A-4AMSS**

**Structure:**

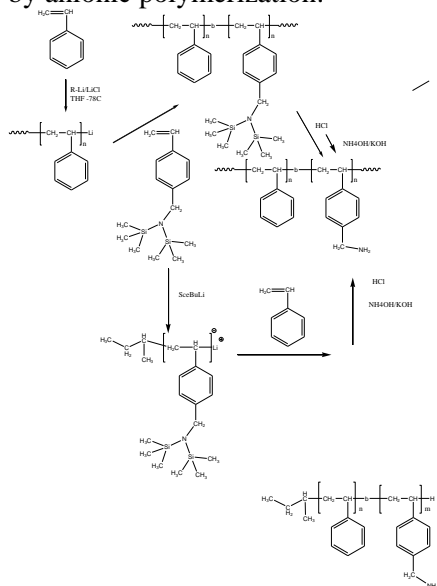


**Composition:**

Mn x 10 <sup>3</sup> 4AMS -b- S	Mw/Mn (PDI)
3.5-b-107.0	1.3

**Synthesis Procedure:**

Poly(4-amino methyl styrene-b-Styrene) is obtained by anionic polymerization.



**Characterization:**

Polymer 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 at 3.76. HNMR analysis was carried out in CdCl<sub>3</sub> for the amino protected group with trimethyl silyl groups. Block copolymer PDI is determined by SEC.

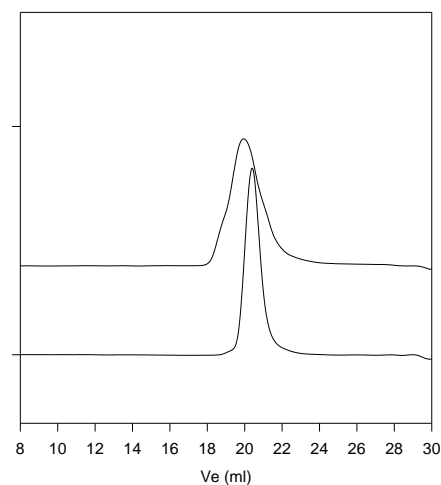
**Solubility of the polymer**

Poly(4-amino methyl styrene-b-Styrene) polymer (protected Amino compound) is soluble in THF, CHCl<sub>3</sub>, Toluene. Once the trimethyl silyl group removed the free amino methyl styrene block polymer was found insoluble in most of the solvents depending on its compositions.

The solubility of such type of polymer in different solvent is based on its composition. This compositions polymer was found soluble in most of the common solvents such as in THF, CHCl<sub>3</sub>, and Toluene.

**SEC profile of the block copolymer**

**P11196A-S4AMS**



Size exclusion chromatography of poly(styrene-b-4-(N,N-bis (trimethylsilyl) aminomethyl )styrene

— Polystyrene, M<sub>n</sub>=107,000 Mw= 116,500 PI=1.09  
— Polystyrene(107,000)-b-4-(N,N-bis (trimethylsilyl) aminomethyl )styrene (7,500),PI=1.30  
After Deprotection of Amino group:  
PStyrene-b-4 amino Methylstyrene Mn : 107,000-b-3,500 Mw/Mn 1.30