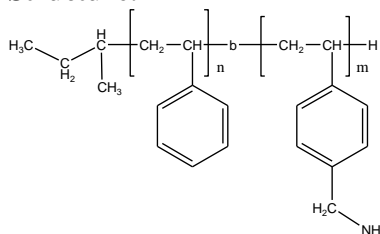


Sample Name:

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

Sample #: **P11196B-4AMSS**

Structure:

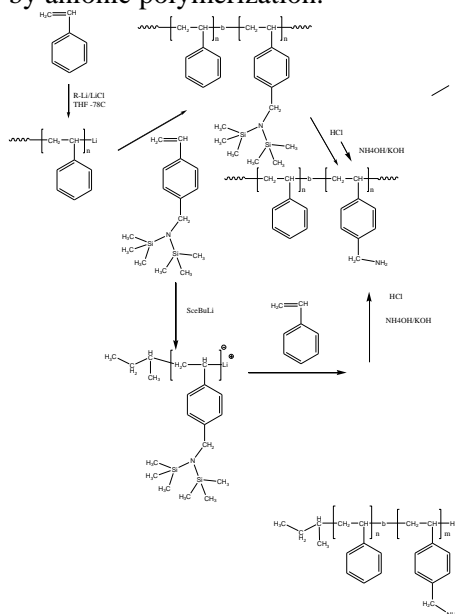


Composition:

Mn x 10 ³ 4AMS-b-S	Mw/Mn (PDI)
3.0-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 ¹H-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 CdCl₃ for the amino protected group with trimethyl silyl groups. Block copolymer PDI is determined by SEC.

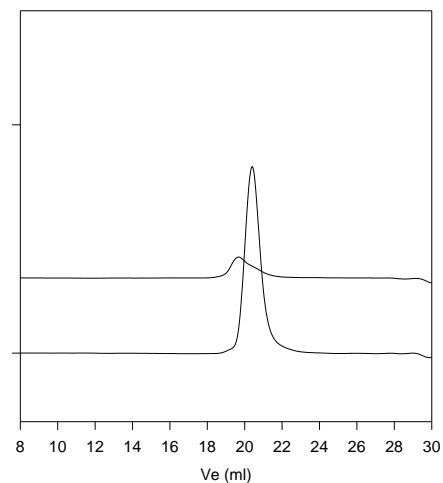
Solubility of the polymer

Poly(4-amino methyl styrene-b-Styrene) polymer (protected Amino compound) is soluble in THF, CHCl₃, 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, CHCl₃, Toluene

SEC profile of the block copolymer

P11196B-S4AMS



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

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