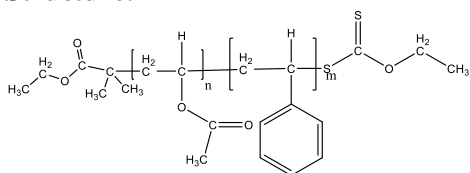


**Sample Name:** Poly (vinyl acetate–b–styrene)

**Sample #:** P42340A-VAcS

**Structure:**

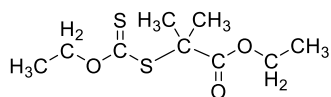


**Composition:**

$M_n \times 10^3$ VAC-b-S	PDI
10.0-b-85.0	1.7

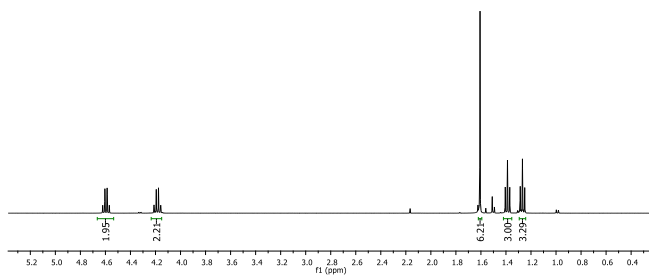
**Synthesis Procedure:**

The product was obtained by successive RAFT polymerization of vinyl acetate and styrene using AIBN as a radical initiator and the following chain transfer agent:



Chemical Formula:  $C_9H_{16}O_3S_2$   
Exact Mass: 236.05

**$^1H$  NMR spectrum of RAFT (400 MHz,  $CDCl_3$ ):**



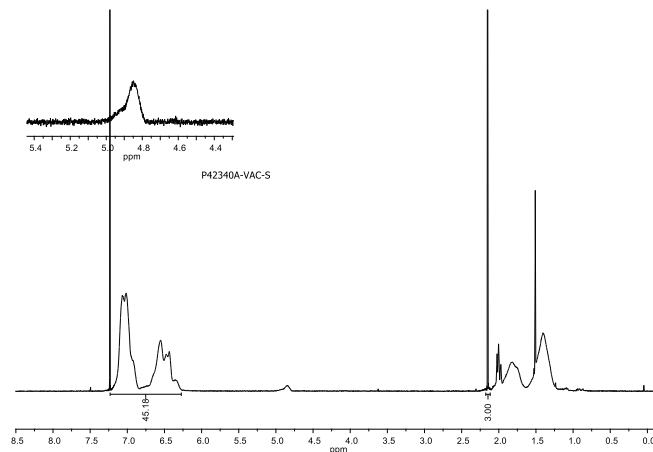
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and  $^1H$  NMR.

**Solubility:**

The polymer is soluble in THF, Acetone and  $CHCl_3$ . It precipitates from MeOH and Hexane.

**$^1H$  NMR spectrum of PVAc–b–PS Sample:**

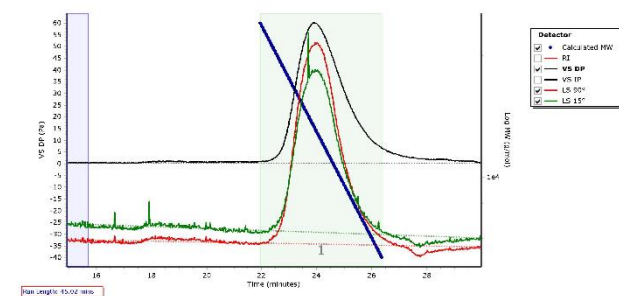


**SEC elugram of VAC-RAFT macroinitiator:**

Agilent GPC/SEC Software

Chromatogram Plot

P42340-VAC-RAFT



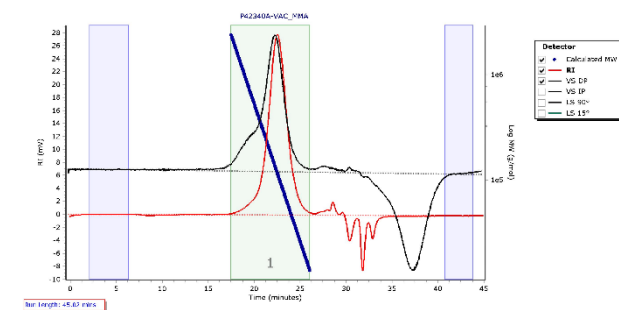
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	13730	10041	12406	14865	17364	14635	1.235

**SEC elugram of the block copolymer:**

Agilent GPC/SEC Software

Chromatogram Plot

P42340A-VAC\_MMA



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	117732	95693	106618	362451	676517	308092	1.736