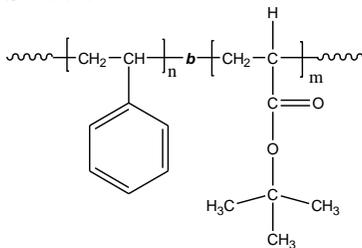


**Sample Name:** Poly (styrene-b- tert.butylacrylate)

**Sample #:** P42250A1-StBuA

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> S-b-tBuA	PDI
24.0-b-6.0	1.02

**Synthesis Procedure:**

Poly(styrene-b-tert.butyl acrylate) is prepared by living anionic polymerization in THF at -78 °C using sec.BuLi initiator adduct with  $\alpha$ -methyl styrene in the presence of LiCl. For further details please see our published articles.<sup>1-3</sup>

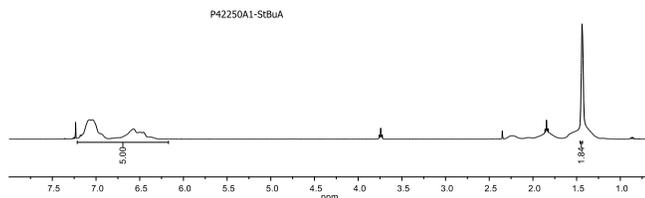
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR.

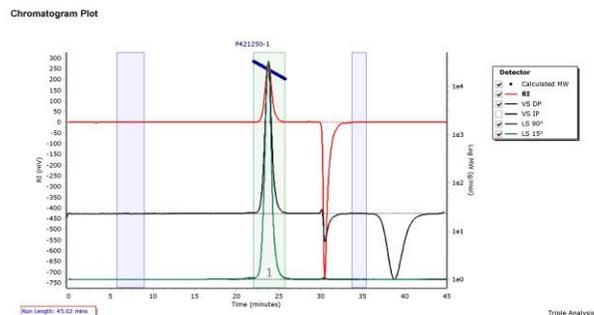
**Solubility:**

Poly (styrene-b-tert.butylacrylate) is soluble in THF, toluene, dioxane and CHCl<sub>3</sub>.

**<sup>1</sup>H NMR spectrum of the PS-b-tBuA:**



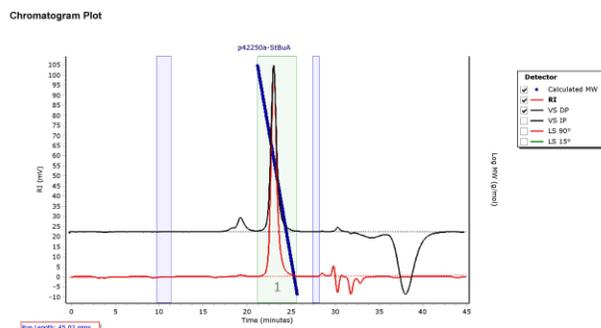
**SEC elugram of the first (PS) block:**



**SEC elugram of the product (diblock copolymer):**

Agilent GPC/SEC Software

p42250a-StBuA



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	32283	31098	31741	32351	32888	32262	1.021

***References for further information:***

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, R. Fayt, S. K. Varshney, and C. Jacobs Eur. Pat. Appl., Jan 16, 1991 *Eur.Pat.408420*  
*Patent Assignees- Atochem S.A France. CA. Vol 114, 26, 247998.*" Star Block Copolymers based on Acrylates and Methacrylates and their Manufacture process".
3. Ph.Teyssie, R. Fayt, and S. K. Varshney, *Eur. Pat. Appl. Dec. 12, 1990. Eur. Pat.402204*  
*Patent Assignees-Norsolor S.A. France. CA Vol 114, 20, 186314.*"Catalyst for the the Anionic Living Polymerization (Meth)acrylates".