

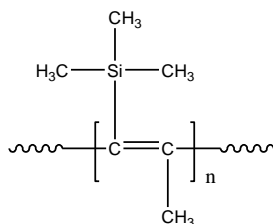
Sample Name: Poly[1-(trimethylsilyl)-1-propyne]

SEC of Homopolymer:

Sample #: P7113-TMSP lot #40770

P7113-TMSP

Structure:

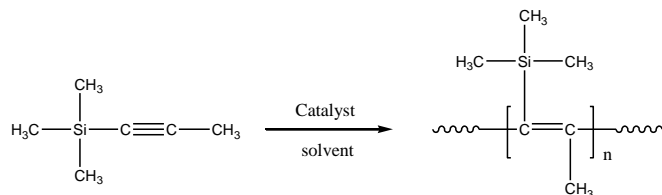


Composition:

Mn x 10 ³	124.0
Mw x 10 ³	135.2
PDI	1.09

Synthesis Procedure:

The polymer is prepared by polymerization of 1-(trimethylsilyl)-1-propyne with TaCl₃ and Ph₃Sb as the catalyst in toluene at 80°C. The scheme of the reaction is illustrated below. The resulting polymer was precipitated in methanol.

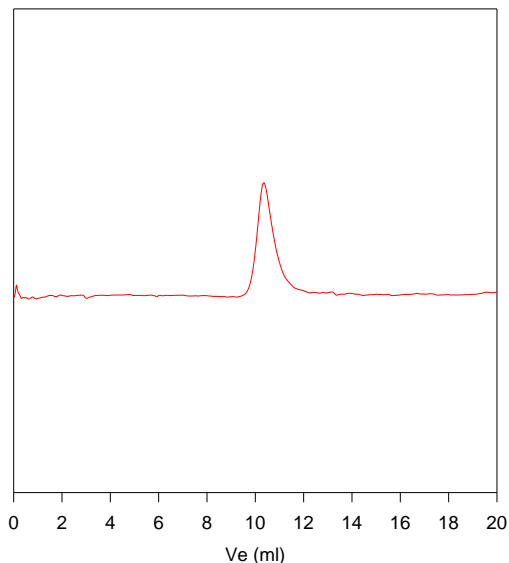


Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in Chloroform. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive detectors and the molecular weight is calculated based on polystyrene standards.

Solubility:

The polymer is soluble in Toluene and CHCl₃. It precipitates from methanol.



Size exclusion chromatography of poly[1-(trimethylsilyl)-propyne]:

M_n=124000, M_w=135200, M_w/M_n=1.09