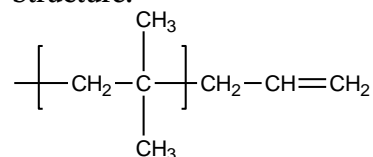


Sample Name:  
**Olefinic Vinyl Terminated Polyisobutylene**

Sample #: **P18905A-IBV**

**Structure:**

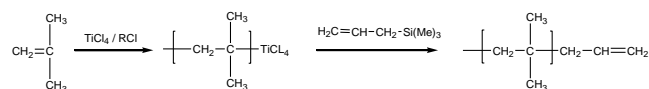


**Composition:**

$M_n \times 10^3$	PDI
1.3	1.3

**Synthesis Procedure:**

Vinyl (olefinic) terminated polyisobutylene was prepared by cationic living polymerization of isobutylene. The polymerization reaction was terminated with allyltrimethylsilane. The scheme of the reaction is illustrated below:



**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

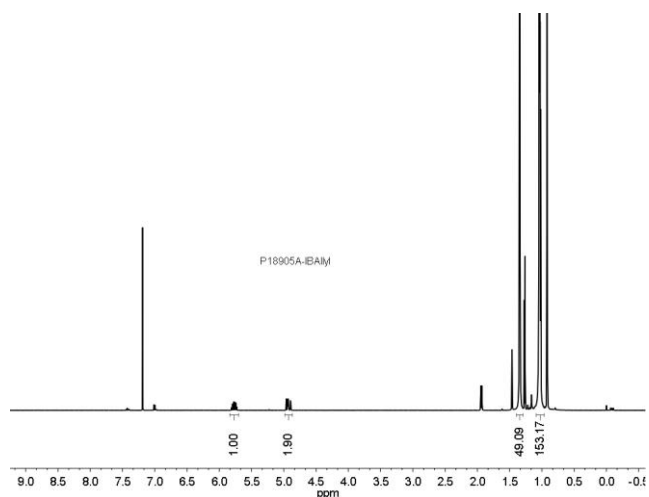
**Functionality:**

The polymer's functionality was determined by  $^1\text{H}$ -NMR spectroscopy.

**Solubility:**

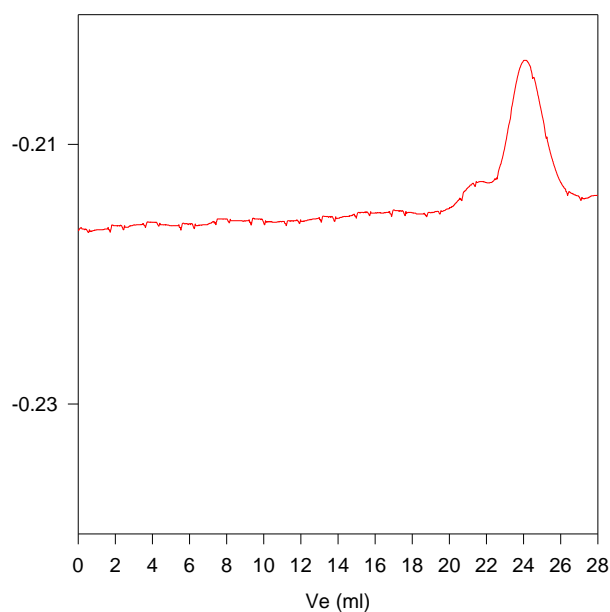
The polymer is soluble in THF,  $\text{CHCl}_3$ , toluene, hexane, acetone and can be precipitated from methanol, ethanol, water.

**NMR spectrum of the sample:**



**SEC of Sample:**

**P18905A-IB-allyl**



Size exclusion chromatography of allyl terminated polyisobutylene:

$$M_n = 1,300, \quad M_w = 1,700, \quad M_w/M_n = 1.3$$