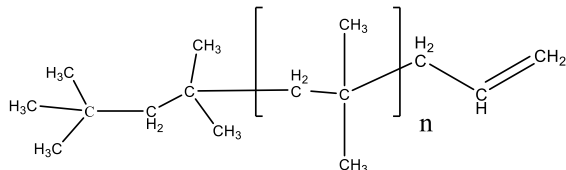


**Sample Name:**

**Poly(isobutylene),  $\omega$ -allyl-terminated**

**Sample #:** P42334-IB-V

**Structure:**

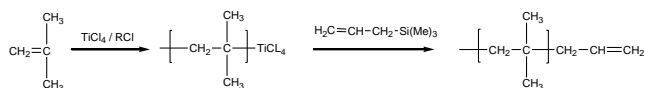


**Composition:**

| Mn x 10 <sup>3</sup>    | PDI  |
|-------------------------|------|
| 7.5                     | 1.03 |
| Allyl end functionality | >99% |

**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.

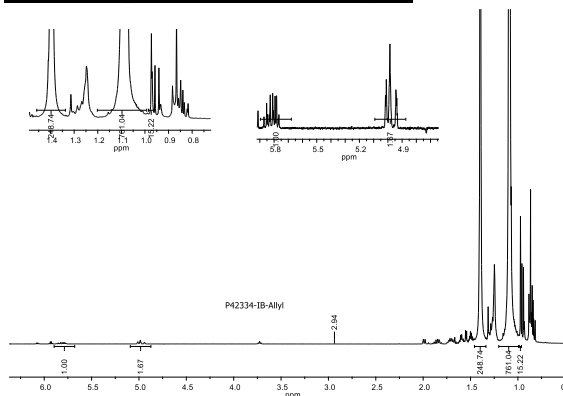
**Functionality:**

The polymer's functionality was determined by <sup>1</sup>H-NMR spectroscopy.

**Solubility:**

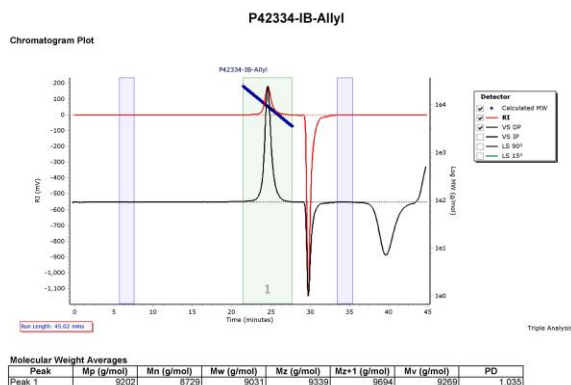
The polymer is soluble in THF, CHCl<sub>3</sub>, toluene, hexane, acetone and can be precipitated from methanol, ethanol, water.

**H NMR spectrum of the sample:**



**SEC elugram of the Sample:**

Agilent GPC/SEC Software



**Effect of Solvents system on the cationic process of IB polymerization:**

