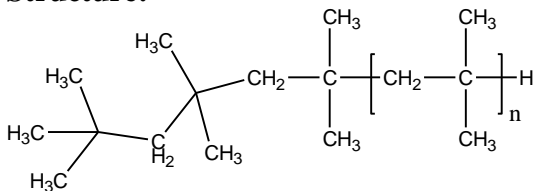


Sample Name: Polyisobutylene

Sample #: P16183-1b

**Structure:**

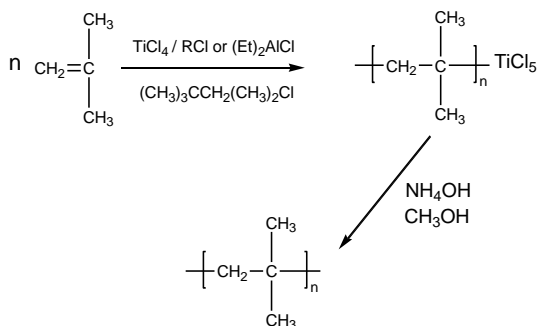


**Composition:**

Mn x 10 <sup>3</sup>	PDI
1.4	1.16
1.0 (HNMR)	

**Synthesis Procedure:**

Polyisobutylene is synthesized by living cationic polymerization of isobutylene in hexane at -78 °C using a tin based catalyst and a 2,4,4-dimethyl pentene / HCl initiator. The reaction scheme is shown below:

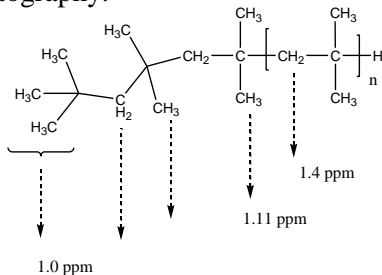


**Purification:**

After polymerization the catalyst residues are removed by filtration and washing with acidic water after which the pH is returned to nominal values and finally the polymer is freeze dried.

**Characterization:**

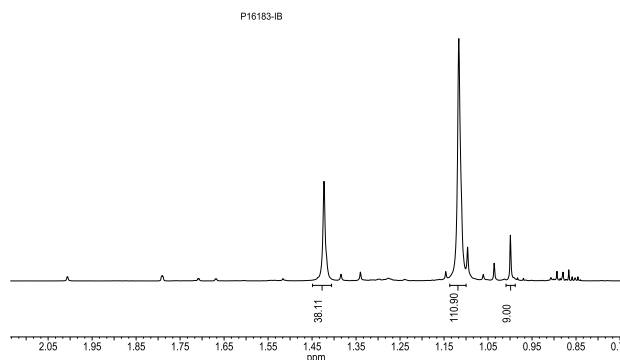
The molecular weight and polydispersity index (PDI) of polyisobutylene are obtained by size exclusion chromatography.



**Solubility:**

Polyisobutylene is soluble in THF, toluene, hexane, pentane and cyclohexane and precipitates from methanol and ethanol.

**1H NMR spectrum of the polymer:**



**SEC elugram of Homopolymer:**

