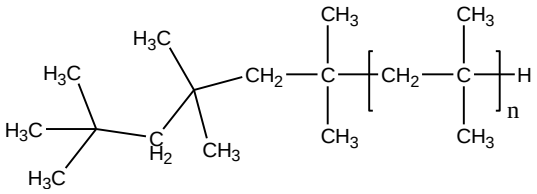
Sample Name: **Polyisobutylene**

Sample #: **P40497K-Ib**

Structure:

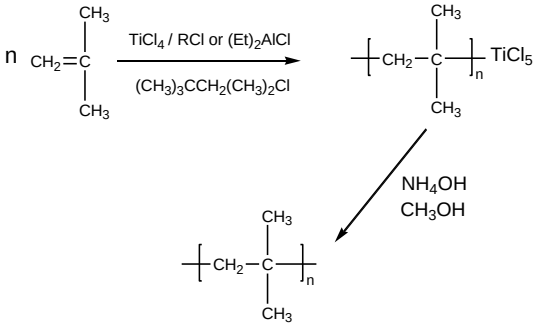


Composition:

Mn x 10^3	PDI
106.0	1.3

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:

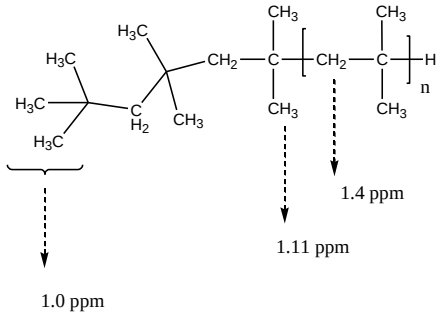


Purification:

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.



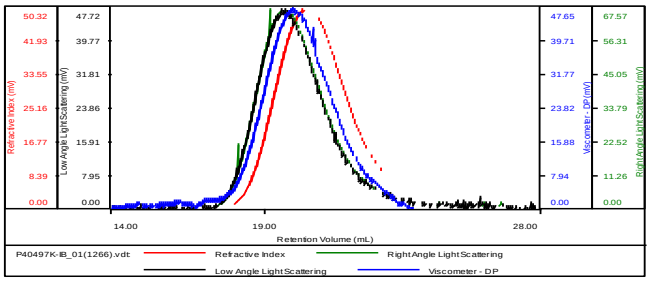
Solubility:

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

SEC elugram of the Sample::

P40497K-IB

Concentration (mg/mL)	1.9537
Sample dn/dc (mL/g)	0.1220
Method File	PS80K-Feb2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40497K-IB_01(1266).	105,975	140,415	1.325	1.6710	122,316