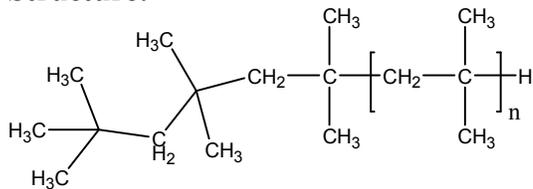


Sample Name: Polyisobutylene

Sample #: P40497X-IB

Structure:

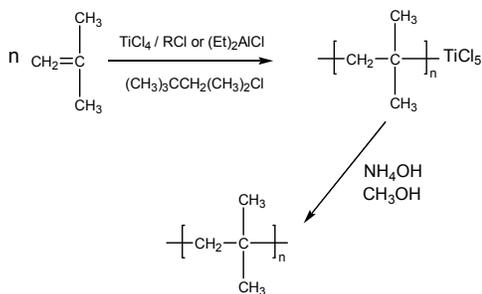


Composition:

Mn x 10 ³	PDI
79.0	1.3

Synthesis Procedure:

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

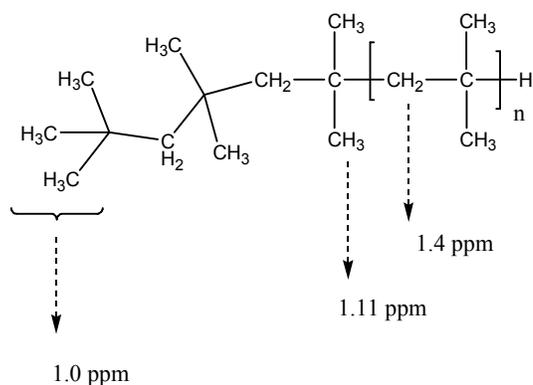


Purification:

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.



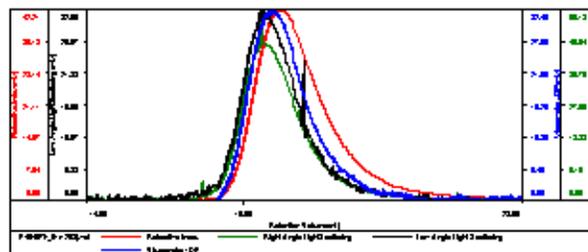
Solubility:

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

SEC elugram of the Sample:

P40497X-IB

Concentration (mg/mL)	1.5399
Sample dilute (mL/g)	0.1224
Method File	P40497X-IB-001010.m
Column Set	3: PL 1113500
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	[V] (dL/g)	Mp (Da)
P40497_01(1268).w1	79,130	102,584	1.295	1.2213	102,529