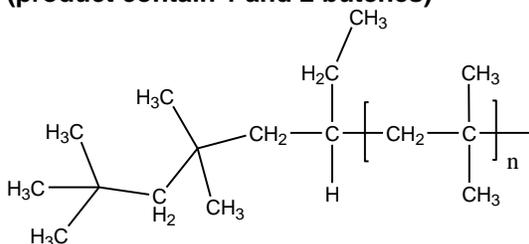


Sample Name: Oligomer of Polyisobutylene (Dp: 13)

Sample #: P9351B-IB (product contain 1 and 2 butenes)



Composition:

Mn x 10 ³	PDI
0.720	1.10
% of 1, and 2 butenes	2%

Synthesis Procedure:

Oligomers of 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.

Purification:

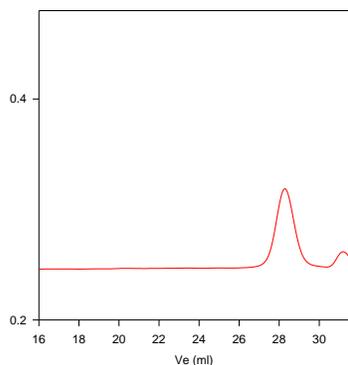
After polymerization the catalyst residues are removed by filtration and washing with acidic water after which the pH is returned to nominal values and finally the polymer is freeze dried.

Characterization:

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

SEC of Homopolymer:

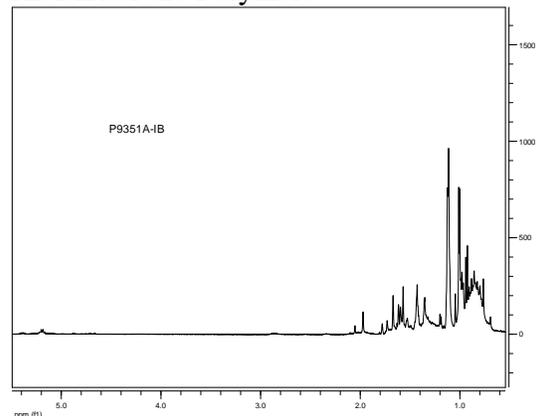
P9351B-Isobutylene Oligomers



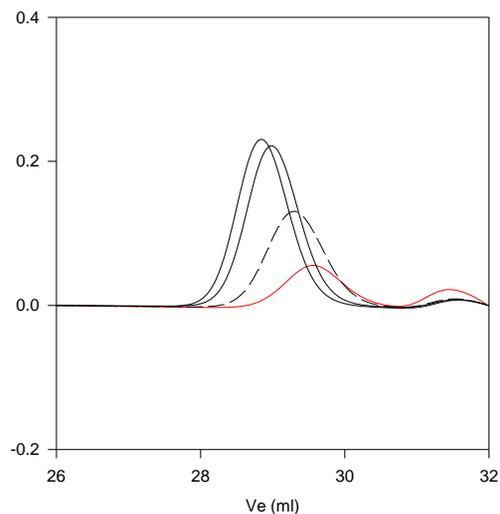
Size Exclusion Chromatography of Poly Isobutylene oligomers

Dp of IB monomer is : 13 Mw/Mn 1.10

HNMR of the Polymer:



Isobutylene Oligomers



Size Exclusion Chromatography of Poly Isobutylene oligomers

Dp of IB monomer is :

n: 6 Mw/Mn 1.05

n: 7 Mw/Mn 1.05

n: 9 Mw/Mn 1.05

n: 10 Mw/Mn 1.05