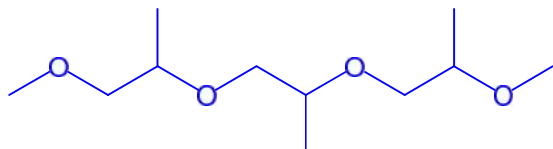


Sample Name:

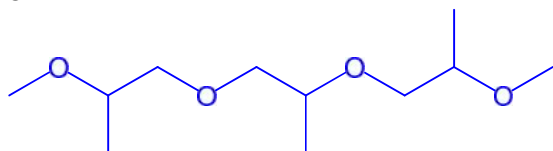
α,ω - di methoxy terminated-polypropylene oxide or Poly propylene glycol dimethyl ether

Sample #: **P6599-PO2OCH3 (isomer mixture)**

Structure:



Or

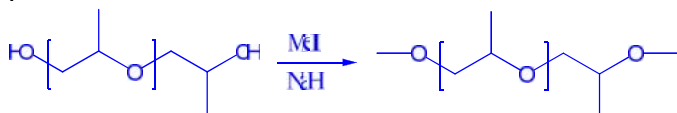


Composition:

$M_n \times 10^3$	PDI
0.22	1.05

Synthesis Procedure:

Polypropylene oxide is synthesized by anionic polymerization of propylene oxide as illustrated in the reaction scheme below



Characterization:

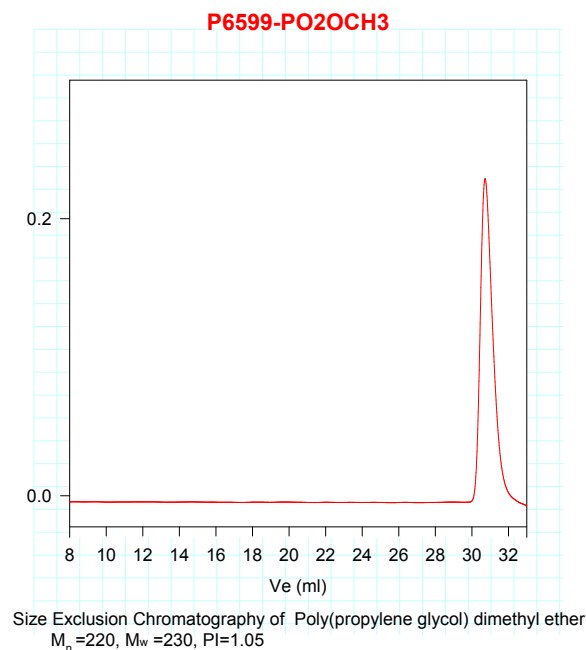
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

Purification:

Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product:

1. Polymer was stirred in de-ionized distilled water to remove the any soluble organic catalyst side product.
2. Polymer extracted from water with dichloromethane.
3. Polymer solution in dichloromethane was dried over anhydrous sodium sulfate.
4. Solution filtered and then passed through a column packed with basic Al_2O_3 .
5. Solution concentrated on rota-evaporator
6. Dried under vacuum for 48h at 38 oC.

SEC of Homopolymer:



1H NMR of the Product:

