

Product Profile

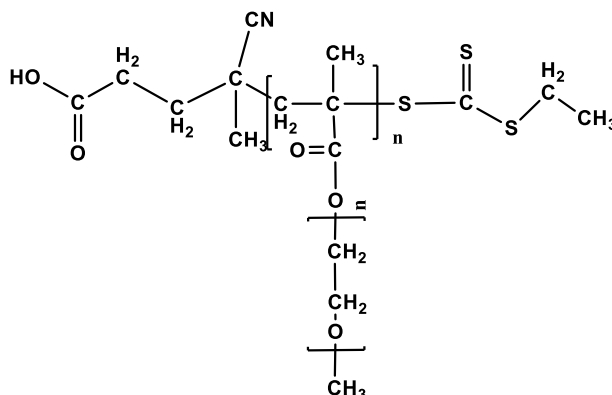
Identification

Product Name: Poly(oligo(ethylene glycol) methyl ether methacrylate)

Other Names: POEGMA, Poly(oligo(ethylene glycol) methacrylate)

Product Lot Number: P80577B0-OEGMA-RAFT

Product Chemical Architecture:

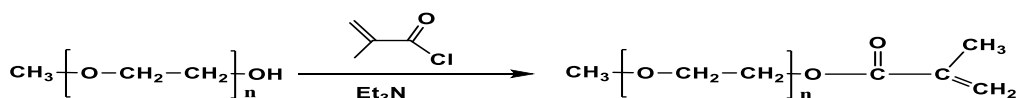


Composition:

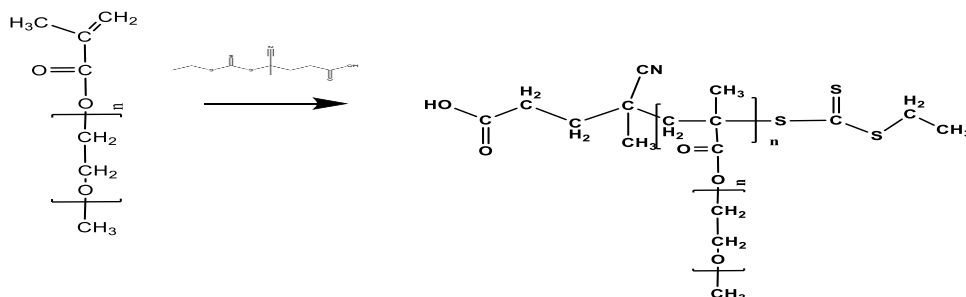
Mn x 10 ³	Mw/Mn (PDI)	Microstructure of Polymer by ¹ H NMR
40.0	1.38	Heterotactic rich

Method of Synthesis: By RAFT process

Synthesis of Monomer



Polymerization process: Macromonomer of POEGMA



Solubility in different solvents for the polymer

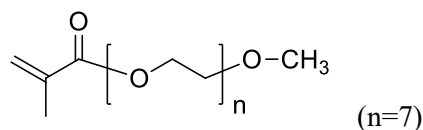
(because of high MW it is partial soluble or 1mg per 1ml Solubility)

THF Partial	√	H2O-Partial (H MW)	√
CHCl3	√	DMF	√
Toluene-Hot	×	Dioxane	√

Following monomer was used:

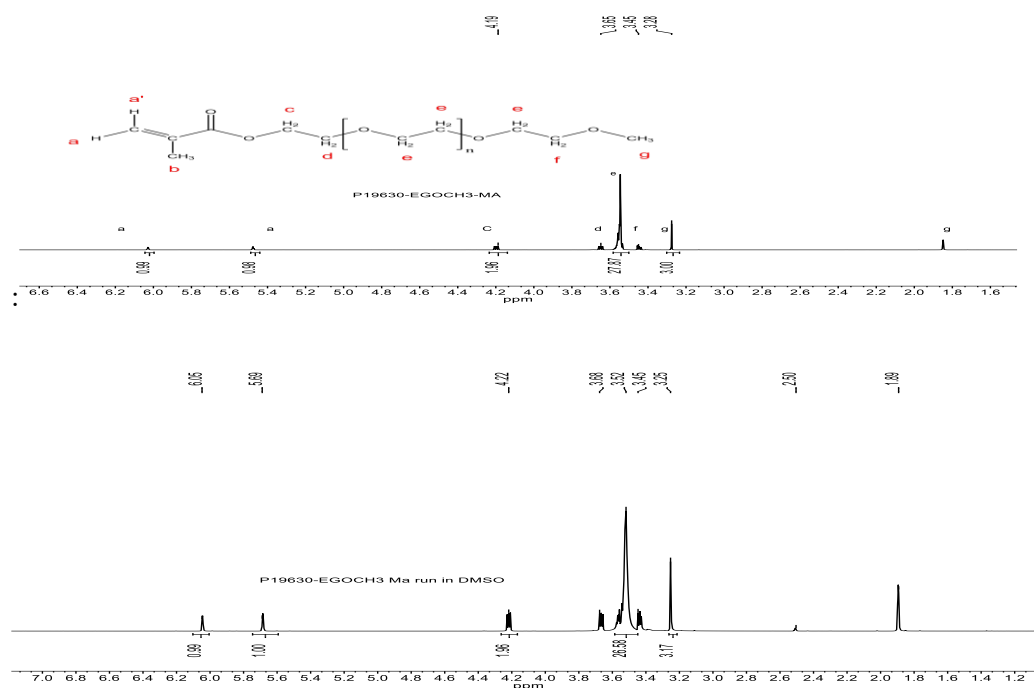
Oligo(ethylene glycol) methyl ether methacrylate

Lot#P19630-EGOCH3MA



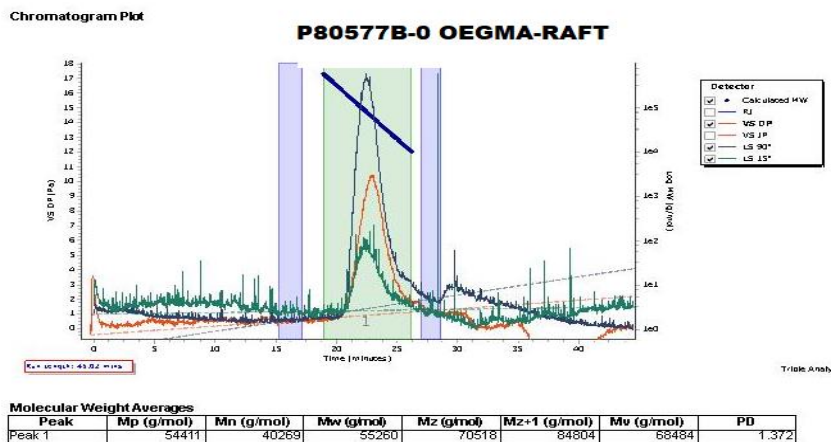
Molecular weight (g/mol):	$M_n = 300$
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¹H NMR spectrum of the oligomer



Validation of Architecture:

A. Gel Permeation Chromatography (GPC), SEC- Profile of Polymer



¹H NMR spectrum of P805778-0-OEGMA-RAFT in CDCl₃.

The spectrum displays the following peaks (ppm):

- 3.43 (m, 1H, CH-OH)
- 2.92 (m, 1H, CH₂-CN)
- 2.85 (m, 1H, CH₂-CN)
- 2.32 (m, 1H, CH₂-CN)
- 1.91 (m, 1H, CH₂-CN)
- 0.99 (m, 1H, CH₂-CN)
- 0.83 (m, 1H, CH₂-CN)

The chemical structure of the polymer is shown in the inset, illustrating the repeating unit and the specific protons assigned to the peaks in the spectrum.