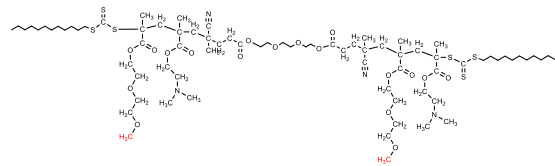


Sample Name: Poly (Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate)-b-Poly ethylene glycol-b- Poly(Diethylene glycol methylethermethacrylate-co-[N,N-dimethylamino]ethyl methacrylate)

Sample #: P43961-DEGMEOMA-DMAEMA-b-PEG-DEGMEOMA-DMAEMA

Structure:



Composition:

Mn $\times 10^3$ PEG Block	Mn $\times 10^3$ total	Mw/Mn
10.0	47.0	2.2
PDEG-MEOMA(82) co-DMAEMA(19)-b-PEO(227)-b-PDEG-MEOMA(82)-co-DMAEMA(19)		
Mn: 15,500-b-3,000-b-10,000-b-15,500-b-3000		

Synthesis Procedure:

The polymer is prepared by RAFT process using α - ω -RAFT-PEG.

Characterization:

The molecular weight and polydispersity index (PDI) were calculated by SEC using water as eluent. The copolymer composition was calculated from $^1\text{H-NMR}$ spectroscopy.

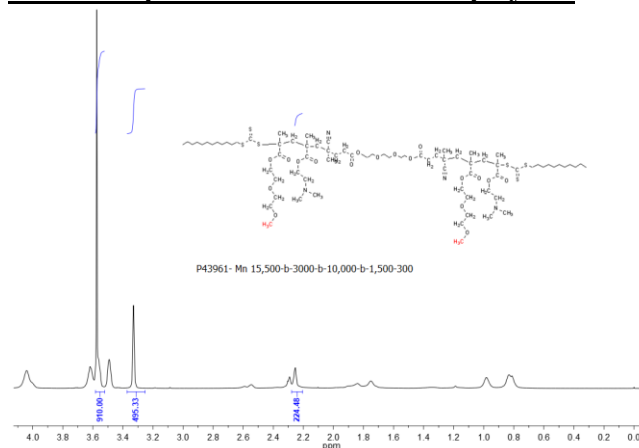
Solubility:

The polymer is soluble in water. 1mg polymer in Water gives cloudy solution, after heating solution to about 40 °C by bubbling CO₂, it gives clear solution immediately.

CO₂- responsive Polymer Materials:



$^1\text{H-NMR}$ Spectrum of the random copolymer



SEC of the random copolymer

