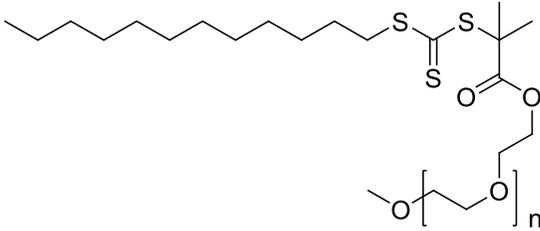


Sample Name: α -Methoxy- ω -[2-methyl-2-propionic acid dodecyl trithiocarbonate) -terminated Poly(ethylene oxide)

Sample #: P44513-mPEG-RAFT

Structure:



Composition:

$M_n \times 10^3$	PDI
5.0	1.08

RAFT functionality $\geq 90\%$ (NMR)

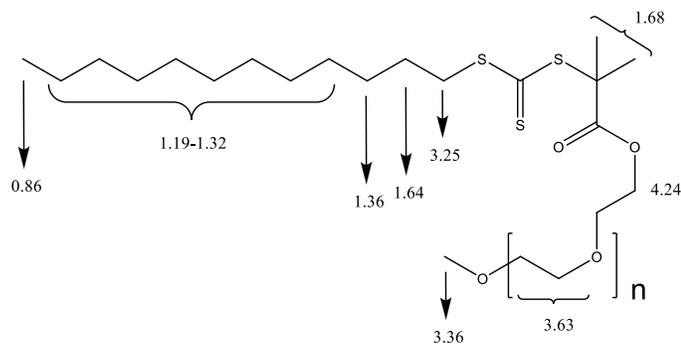
Characterization:

PEO bearing RAFT initiating site was analyzed by size exclusion chromatography (SEC) to obtain the polydispersity index (PDI). M_n and percentage of RAFT functionality was estimated from NMR by comparing the integrals ratio of the peaks at 3.36 and 3.63 ppm, and 3.36 and 4.24 ppm, respectively.

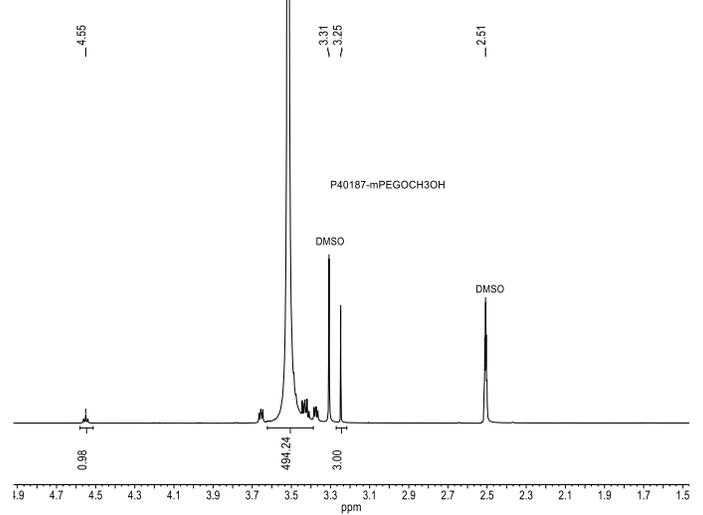
Solubility:

Poly(ethylene oxide) is soluble in toluene, CHCl_3 , Acetone, THF, water. It is insoluble in ether, hexane. Precipitated from DCM or CHCl_3 into ether.

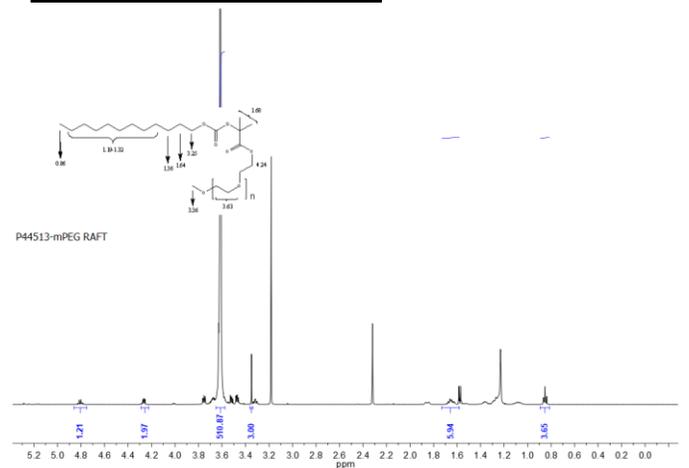
Chemical shifts assignments



$^1\text{H-NMR}$ of the Initial PEO- lot# P40187

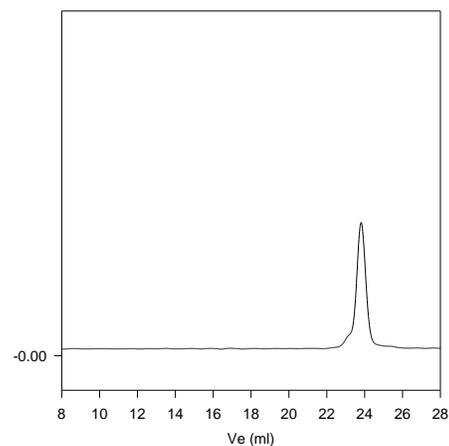


PEO with RAFT End group



SEC profile of the polymer:

P44513-mPEG



Size Exclusion Chromatography of Polyethylene glycol

$M_n=5000$, $M_w=5400$, $PI=1.08$