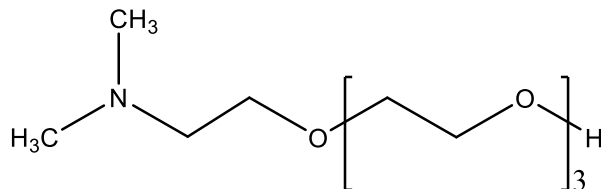


Sample Name:

Poly(ethylene oxide), a-dimethyl amino-terminated

Sample#: **P42996F1-EGN(CH₃)₂**

Structure:



Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n	Dp
0.13	1.04	3

Synthesis Procedure:

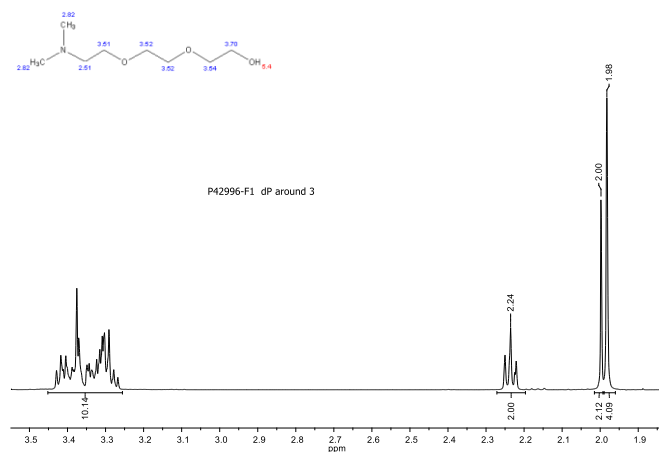
Ethylene oxide was polymerized by living anionic polymerization using potassium salt of N,N dimethyl amino ethanol.

Characterization:

Purity and polymer structure was confirmed by ¹H NMR analysis done on 500 MHz Bruker spectrometer using CDCl₃ and/or DMSO-d₆ solvents.

The average molecular weight and polydispersity index (M_w/M_n) were determined by size exclusion chromatography (SEC) with triple detection, using DMF or THF as an eluent.

¹H-NMR spectrum of polymer in CDCl₃:



Note: End hydroxy group cannot be seen by NMR in chloroform but can be observed in dimethylsulfoxide.

SEC elugram of functionalized PEG:

Workspace Details
Workspace name
Location
Comments
Created by
Calibration 2020-05-25
C:\ProgramData\Agilent Technologies\GPC\Workspaces\Calibration 2020-05-25\
agilent2 at 10:50:10 AM on May-25-20

Chromatogram Plot

