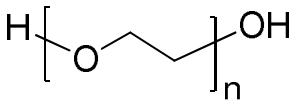
Sample name: **Poly(ethylene glycol)**

Other names: **Poly(ethylene oxide), PEG, PEO**

Sample # **I-0009-PEG**

Structure:



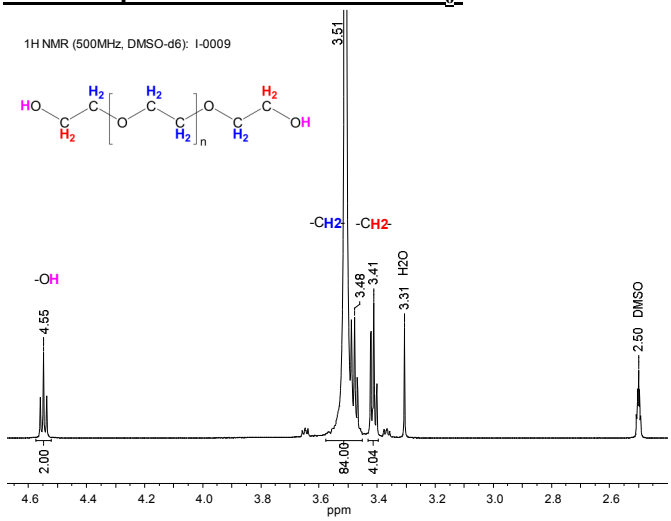
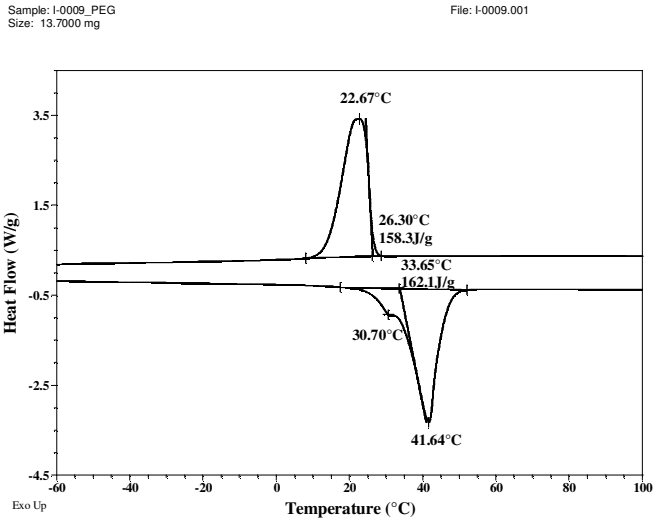
Molecular weight, $\mathbf{M_n \times 10^3}$ (g/mol):	**1.0**
CAS number:	25322-68-3
Appearance:	wax-like
Colour:	white
Melting point, T_m:	42 °C

Characterization methods:

The molecular weight of the polymer was calculated from ^{1}H NMR data recorded on Bruker Avance III 500 NMR spectrometer. Dimethyl sulfoxide-d_6 was used as a solvent.

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The melting point (T_m) of the polymer was measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

^{1}H NMR spectrum of PEG in DMSO-d_6:



DSC thermogram: 2nd cooling scan (top, 10°C/min) and 2nd heating scan (bottom, 10°C/min)