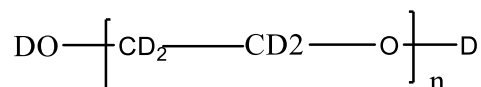


Sample Name:

**Deuterated Poly(ethylene glycol) Dihydroxy Terminated**

Sample #: **P42617-dPEO2OD**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
35.0	1.13

**Synthesis Procedure:**

Deuterated Poly (ethylene glycol) is obtained by living anionic polymerization using  $\alpha$ - $\omega$ -dipotassium alkoxide of ethylene glycol. Polymerization of freshly distilled deuterated ethylene oxide was carried out at room temperature for 24h followed by termination with acidic methanol. The obtained polymer was passed through neutral Al<sub>2</sub>O<sub>3</sub> packed column and precipitated in ethyl ether at low temperature. Polymer was dried at room temperature for 24h.

**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

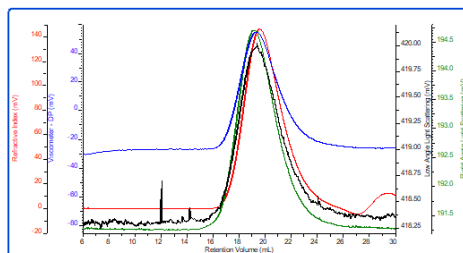
**Solubility:**

Poly(ethyl glycol) is soluble in toluene, THF, water and CHCl<sub>3</sub>. The polymer is insoluble in hexane, ether, isopropanol and cold ethanol.

**SEC elugram of the Sample:**

P42617-dPEO-2OH

dn/dc	0.0350
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0013.vcm



Sample	Mn	Mw	Mp	Mw/Mn
dEO_1_2020-08-1	35,161	39,837	37,529	1.133