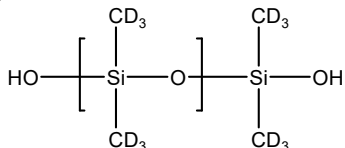


Sample Name:

**Deuterated Poly (dimethylsiloxane-d6) ,  $\alpha,\omega$ -bis(silanol)-terminated**

Sample #: **P43500D-dPDMS**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	Mw x 10 <sup>3</sup>	PDI
98.0	162.0	1.65

**Synthesis Procedure:**

The polymerization of the Deuterated Polydimethyl siloxane; Disilanol terminated was initiated with CF<sub>3</sub>SO<sub>3</sub>H Cationic polymerization process.

**Characterization:**

The product was characterized by size exclusion chromatography (SEC), D NMR and H NMR.

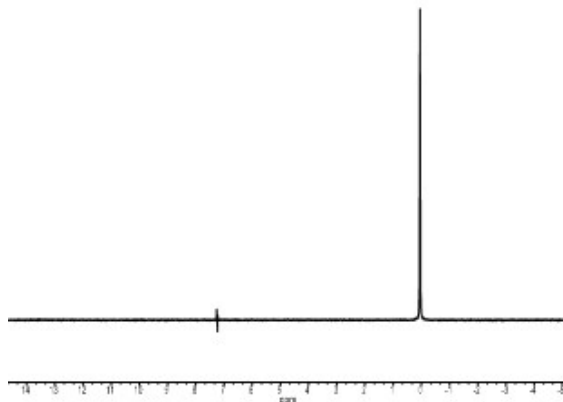
The following table is a listing of the conditions used for SEC analysis:

Parameter	Condition Used
Dissolution Solvent	Toluene
Sample Concentration	20 to 40 mg/mL
Filtration	0.2 $\mu\text{m}$ Nylon syringe filter
Mobile Solvent	Toluene
Columns	2 X Malvern T3000
Flow Rate	1.0 mL/min
System Back Pressure	800 psi
Injection Volume	100 $\mu\text{L}$
Column Temperature	30°C
Detector Temperature	30°C

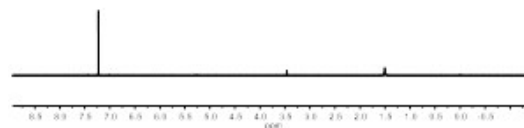
**Solubility:**

Deuterated Polydimethyl siloxane is soluble in hexane, toluene, cyclohexane, THF and chloroform. It precipitates from methanol and ethanol.

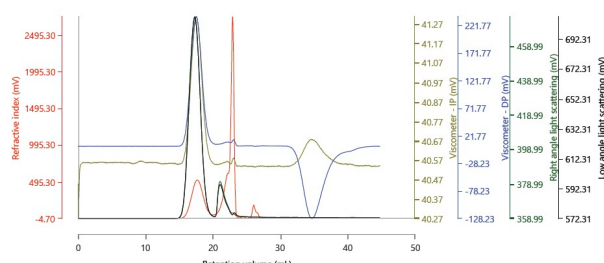
**D NMR spectrum of the Sample:**



**HNMR spectrum of the Sample:**



**SEC elugram of the Sample:**



Results (Rows)

Injection Name	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mw/Mn
P43500-D, Injection 1, Peak 1	97,837	162,213	145,881	1.658