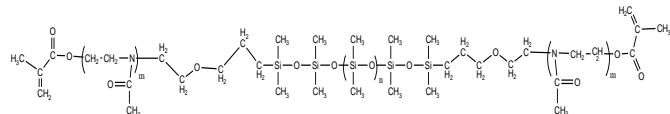


**Sample Name: Methacrylate End Functionalized Poly(2-methyloxazoline-b-dimethylsiloxane-b-2-methyloxazoline) Triblock Copolymer**

**Sample #: P40650-MAMOXZDMSMOXZMA**

**Structure:**

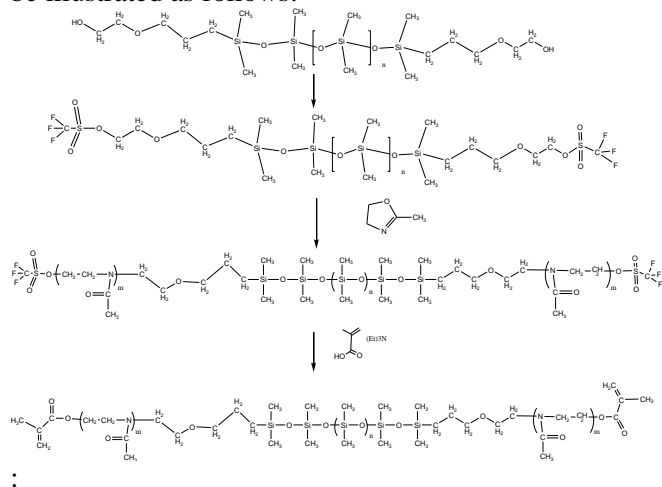


**Composition:**

$M_n \times 10^3$ (g/mol)	$M_w/M_n$
1.3-b-5.0-b-1.3	1.3
Dp: 16-68-15	

**Synthesis:**

The polymer was synthesized by combination of anionic and cationic Process. The reaction of polymerization can be illustrated as follows:



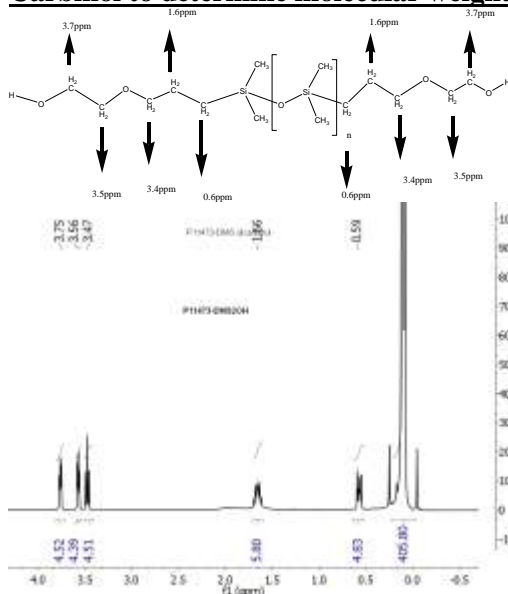
**Characterization:**

The molecular weight and polydispersity index of the polymer were determined by size exclusion chromatography (SEC) and  $^1H$  NMR spectrum.

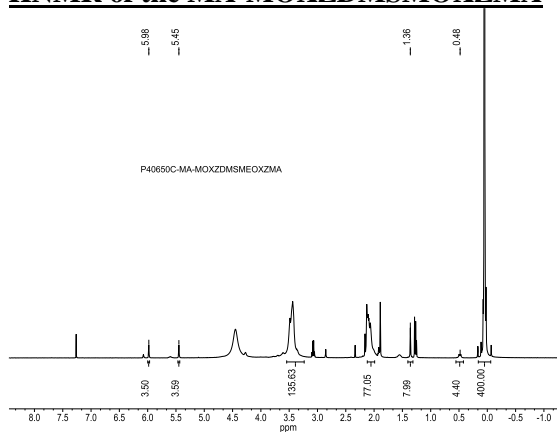
The ratio between blocks was calculated from  $^1H$  NMR spectrum.

The block copolymer could not be eluted in our SEC, the composition of the block copolymer was determined from the  $^1H$  NMR by knowing the molecular mass of the starting PDMS dicarbinol terminated PDMS:  $M_n$  5000

**$^1H$ NMR of the PDMS end functionalized with Carbinol to determine molecular weights**

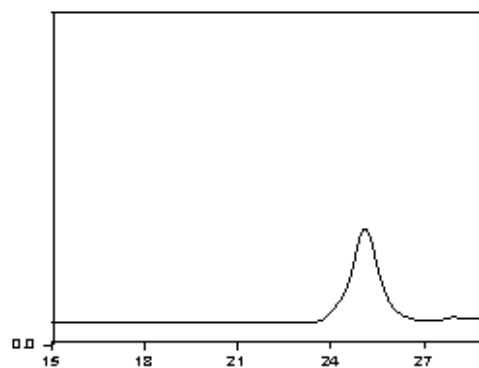


**$^1H$ NMR of the MA-MOXZDMSMOXZMA**



**SEC of the final polymer:**

**P40650 -MAMEOXZDMSMEOXZMA**



Size exclusion chromatography of the polymer: run in DMF at 60 °C

----- MEOXZ-Polydimethylsiloxane-MEOXZ  $M_n = 1300$  b-6000-1300 .  $PI=1.35$