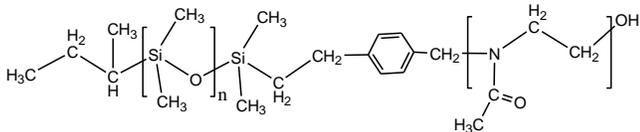


Sample Name: Poly(Dimethylsiloxane-b-2-methyloxazoline) diblock Copolymer

Sample #: P10649-DMSMEOXZ

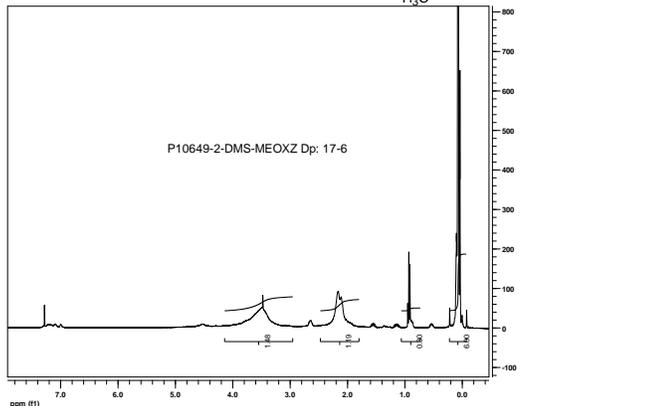
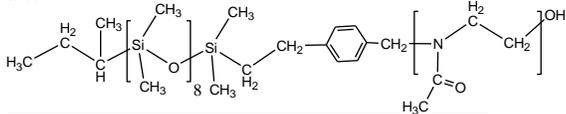
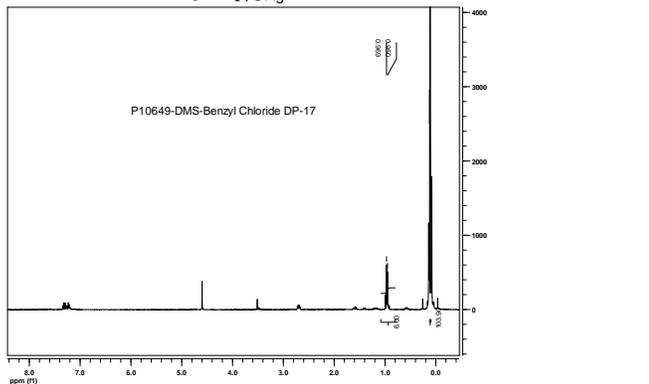
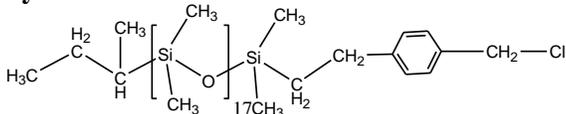
Structure:



Composition:

Mn x 10 ³	PDI
1.3-b-0.50	1.20
Dp: of PDMS-b-MEOXZ 17-b-6 units	
Physical appearance at Room temperature	soft material

Synthesis Procedure:



Purification of the Diblock copolymer:

1. After the reaction Chlorobenzene was removed under vacuum.
2. Product was dissolved in a mixture of methanol-acetone
3. Filter to remove NaI
4. Product centrifuge to remove traces amount of salt.
5. Filter.
6. Concentrate and precipitated in cold acetone at -78 oC.
7. Kept at -10 oC over night.
8. Decant the solution and recover the solid product.
9. Dried under vacuum over 24h at room temperature.

Central Block: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF for the first block (PDMS) since it cannot be eluted in DMF and for the block copolymer in DMF containing 0.06M LiBr at 60 oC as the eluent. The molecular weights and the polydispersity index were calculated.

Side Block: The chemical composition was extracted from proton NMR, which was recorded from Varian 500MHz instrument using CDCl₃ as solvent. The molecular weight of block was calculated based on the molecular weight of the first block and the chemical composition.