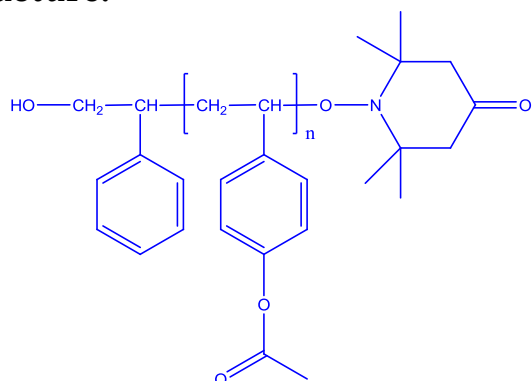


**Sample Name:**

Poly(4-acetoxystyrene),  $\alpha$ -Hydroxyl- $\omega$ -Tempo moiety Terminated

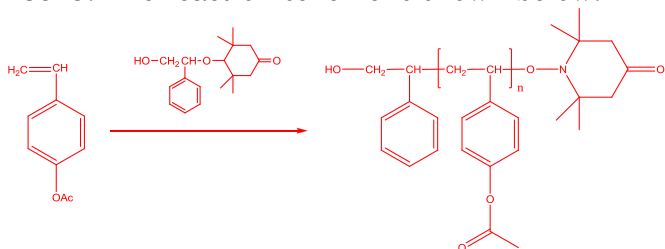
**Sample #:** P6645-4AcSOHT

**Structure:****Composition:**

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)
40.0	1.45
T <sub>g</sub> (°C)	103

**Synthesis Procedure:**

Hydroxy terminated Poly(4-acetoxystyrene) is prepared by stable free radical polymerization at 135°C. The reaction scheme is shown below:

**Characterization:**

An aliquot of the polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI), the instrument calibrated by Polystyrene standards.

**Thermal analysis:**

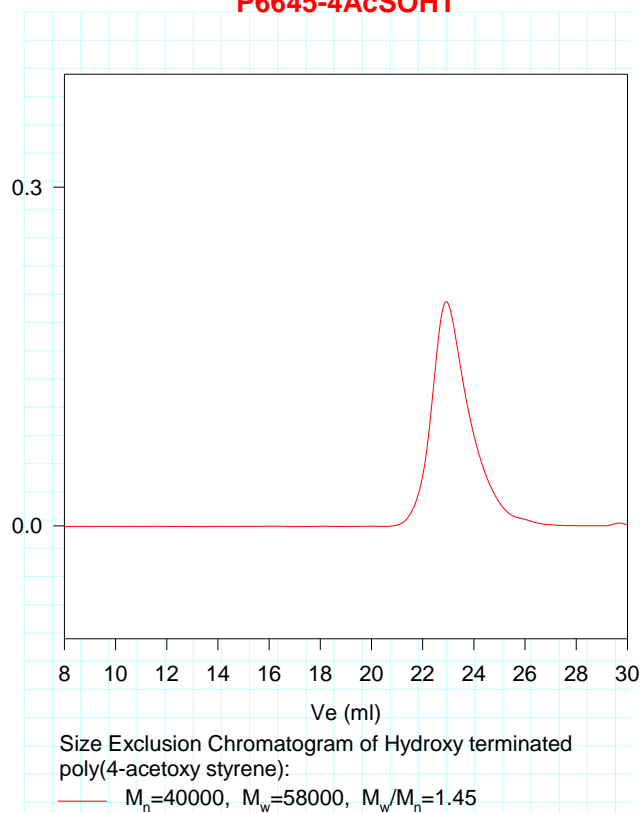
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

**Solubility:**

Poly(4-acetoxystyrene) is soluble in THF, DMF, Toluene and chloroform. Precipitate from methanol and Hexanes.

**SEC profile of the random copolymer**

**P6645-4AcSOHT**

**DSC thermogram for the random polymer:**