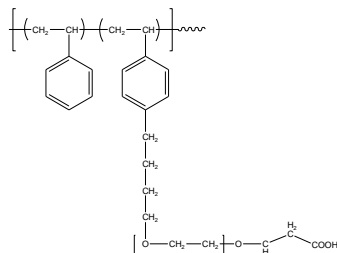


**Sample Name: Polystyrene Graft Ethylene Oxide  
Functionalized with carboxy acid groups**

**Sample #: P41757A-SEOCOOHcomb**

**Structure:**

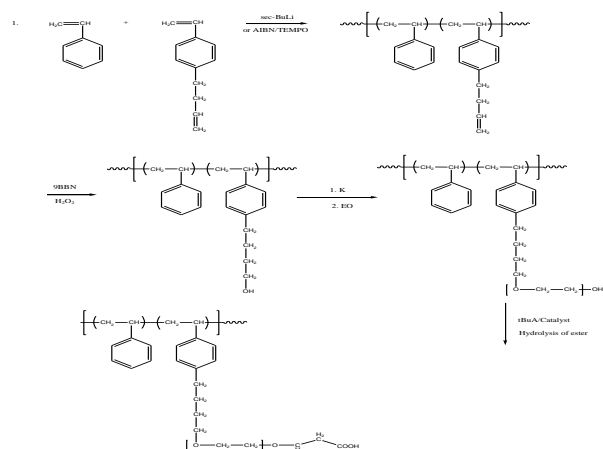


**Composition:**

Mn x 10 <sup>3</sup> (Main Chain)	Mn x 10 <sup>3</sup> (Graft Chain)	Mn x 10 <sup>3</sup> (Total Chain)	Mw/Mn (Total)
6.0	1.4	20.0	1.16
PEO: 10 branches			

**Synthesis Procedure:**

The following reaction scheme shows how the product was prepared:



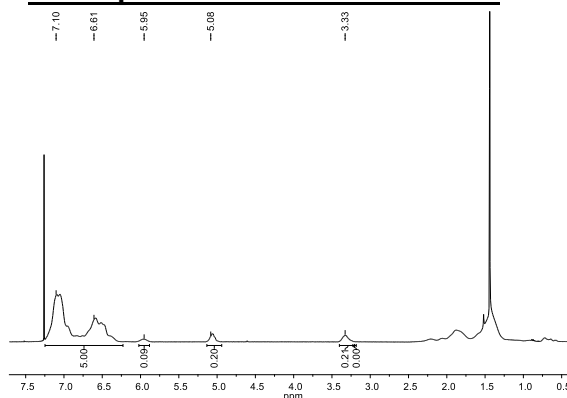
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR.

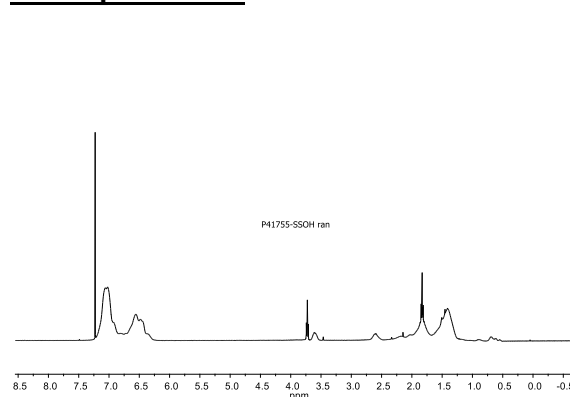
**Solubility:**

Polystyrene-g-poly(ethylene oxide) is soluble in THF, DMF, chloroform, and Toluene. It precipitates from hexanes and cold ether.

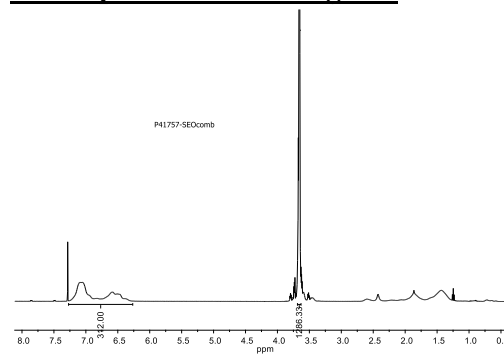
**NMR spectrum of SSButene random:**



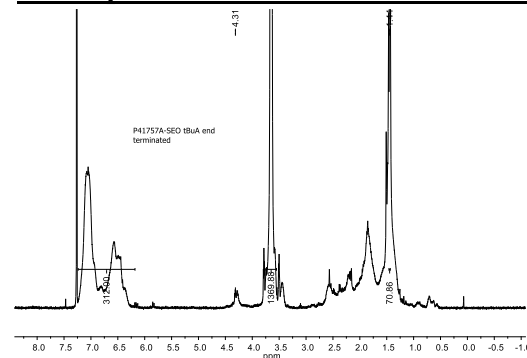
**NMR spectrum of SSButanol:**



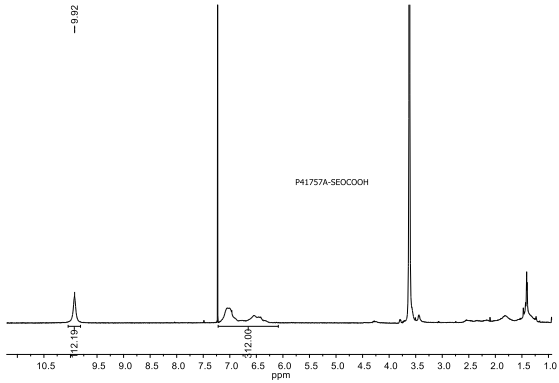
**NMR spectrum of SSEO graft:**



**NMR spectrum of SEOtBuA terminated:**

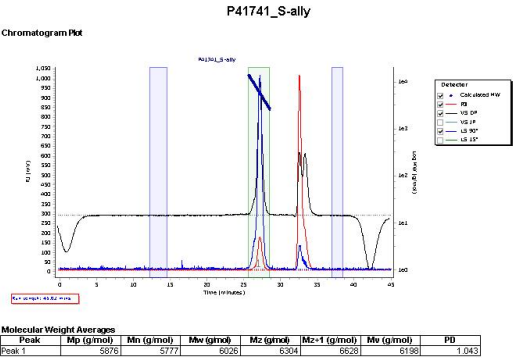


NMR spectrum of the Sample:



SEC elugram of SSallyl ran Lot P41741:

Agilent GPC/SEC Software



SEC elugram of the Sample:

Agilent GPC/SEC Software

