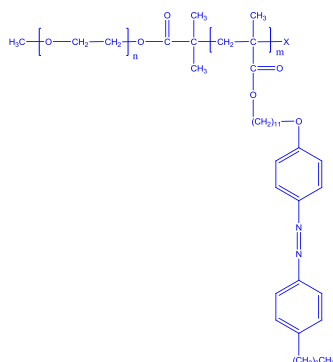


Sample Name: **Poly(ethylene oxide-b-AZoMA)**  
(AZoMA=11-[4-(4-butylphenylazo)phenoxy]-undecyl methacrylate)

Sample #: **P16243D-EOAzoMA**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> PEO-b-PAzoMA	PDI
12.0-b-49.0	1.55

Melting point, T <sub>m1</sub> (PEO):	52 °C
Melting point, T <sub>m2</sub> (PAzoMA):	110 °C

**Synthesis Procedure:**

Poly(ethylene oxide-b-AZoMA) is prepared by RAFT process.

**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR. The compositions and molecular weight were determined by HNMR analysis. The SEC was used to determine its distribution and absence of PEG starting polymer.

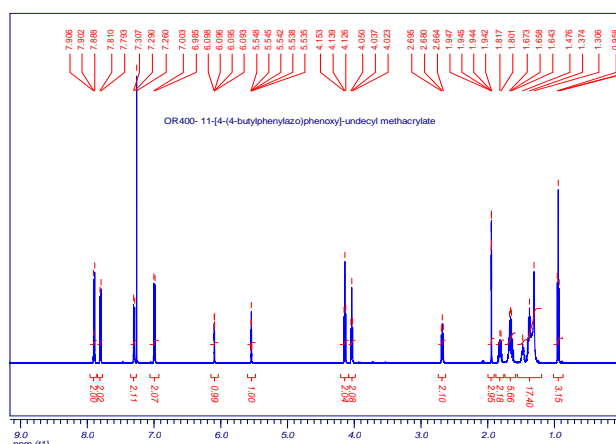
**Solubility:**

Poly(ethylene oxide-b-AZoMA) is soluble in THF, acetone, and chloroform, THF.

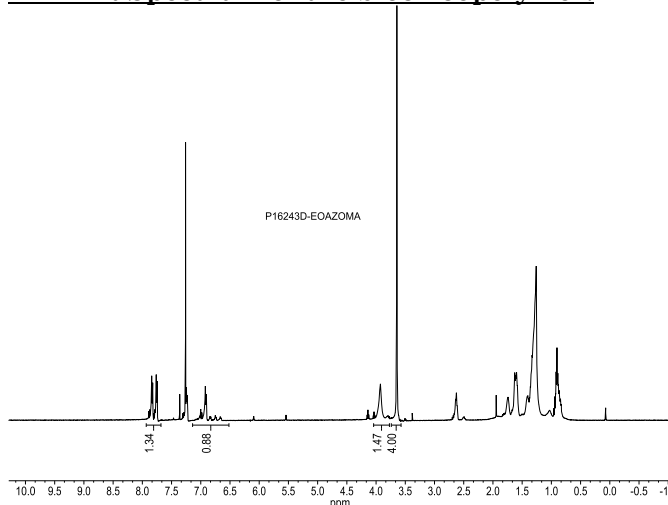
**Thermal analysis:**

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T<sub>g</sub>), melting point (T<sub>m</sub>) and crystallization temperature (T<sub>cr</sub>) of the copolymer were measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

**<sup>1</sup>H-NMR Spectrum of the LC monomer:**



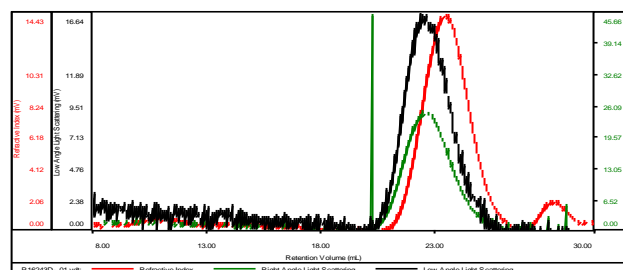
**<sup>1</sup>H-NMR Spectrum of the block copolymer:**



**SEC of the block copolymer:**

**P16243D-EOAZOMA**

Concentration (mg/mL)	3.2119
Sample dn/dc (mL/g)	0.0700
Method File	PS80K-august2017-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

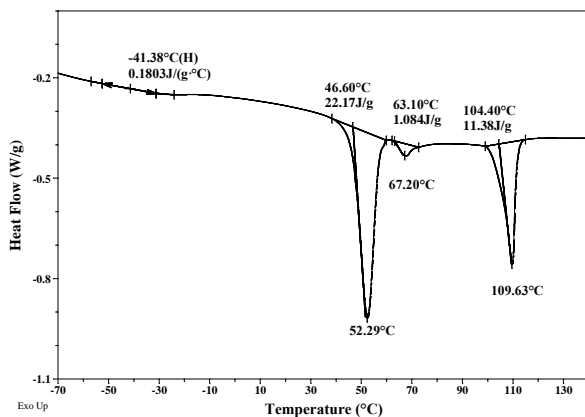


Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P16243D_01.vdt	220,094	341,747	1.553	0.0563	241,327

### DSC thermogram of the polymer (2<sup>nd</sup> heating scan, 10°C/min):

Sample: P16243-D\_EOAzMA  
Size: 7.5000 mg

File: P16243D-EOAzMA.001



### DSC thermogram (cooling and heating scans, 10°C/min):

Sample: P16243-D\_EOAzMA  
Size: 7.5000 mg

File: P16243D-EOAzMA.001

