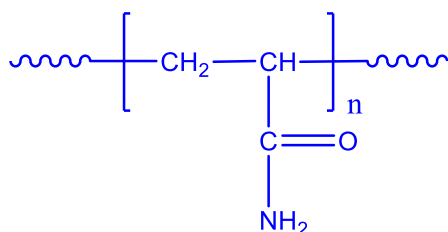


**Sample Name: Poly(acrylamide)**

**Sample #: P6708A-AMD**

**Structure:**

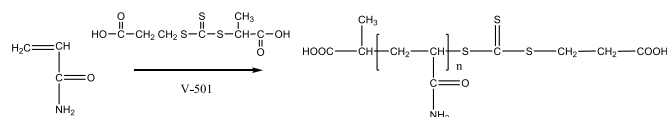


**Composition:**

$M_n \times 10^3$	Mw/Mn (PDI)
22.5	1.6

**Synthesis Procedure:**

Poly(acrylamide) is synthesized by RAFT polymerization of acrylamide using 4,4'-azo(4-cyanopentanoic acid) as initiator and trithiocarbonate as chain transfer agent in water. The reaction scheme is shown below:



**Characterization:**

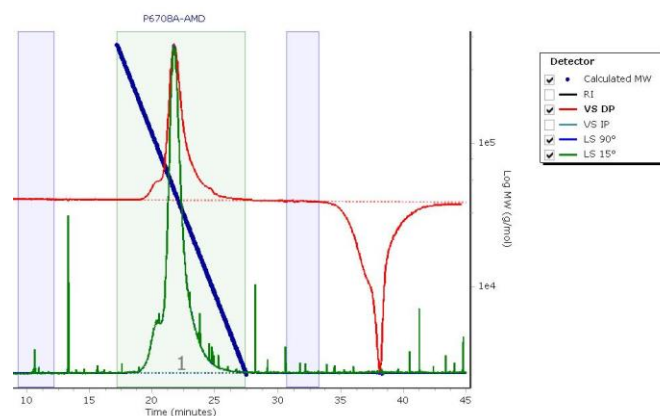
Polyacrylamide and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight polydispersity index (PDI) using water containing 0.2M NaNO<sub>3</sub> and 0.01M NaH<sub>2</sub>PO<sub>4</sub> as eluent. The molecular weight can be calculated by intrinsic viscosity and by SEC the distribution of the polymer calculated using PEG standards polymers. [Ref. Suresh K. Jewrajka, and Broja M. Mandal, *Macromolecules*, 2003, 36 (2), 311-317]

**Solubility:**

The polymer is water soluble only.

**SEC elugram of the polymer:**

**P6708A-AMD**



**Molecular Weight Averages**

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	46693	22621	37159	49479	61559	47387	1.643

**Processing Parameters**

Method	RI	Last modified by GPC Agilent at 10:33:31 AM on August 29, 2018
Concentration Detector Used in Analysis	RI	
Injection volume (μL)	100.00	
Flow rate (mL/min)	1.00	
Concentration options	Calculate Sample Concentration from Entered Sample Properties	
Entered div/c (mL/g)	0.180	
Entered Ext. Coeff ((mg/mL) <sup>-1</sup> ·(cm <sup>-1</sup> ))	1.000	
Calculated RI concentration (mg/mL)	3.340	