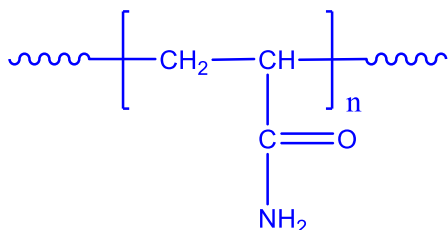


**Sample Name:** Poly(acrylamide)

**Sample #:** P6705A-AMD

**Structure:**

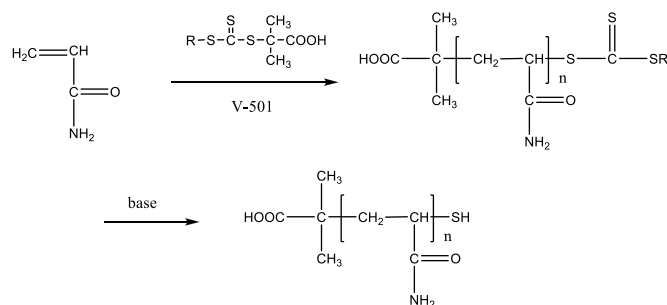


**Composition:**

$\text{Mn} \times 10^3$	$\text{Mw}/\text{Mn}$ (PDI)
12.0	1.45

**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 was 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:**

Agilent GPC/SEC Software

