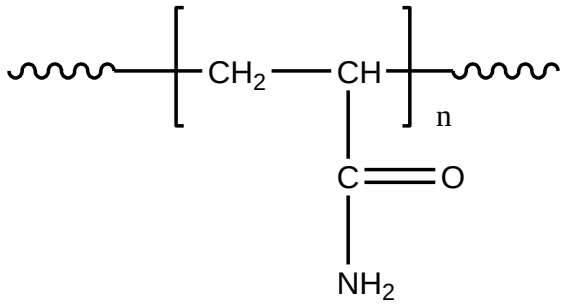
Sample Name: **Poly (Acrylamide)**

Sample #: **P41557-AMD**

Structure:



Composition:

Mn $\times 10^3$	Mw/Mn (PDI)
1,226.0	1.10
T_g (°C)	184

Synthesis Procedure:
Poly (Acrylamide) was synthesized by controlled radical polymerization process.

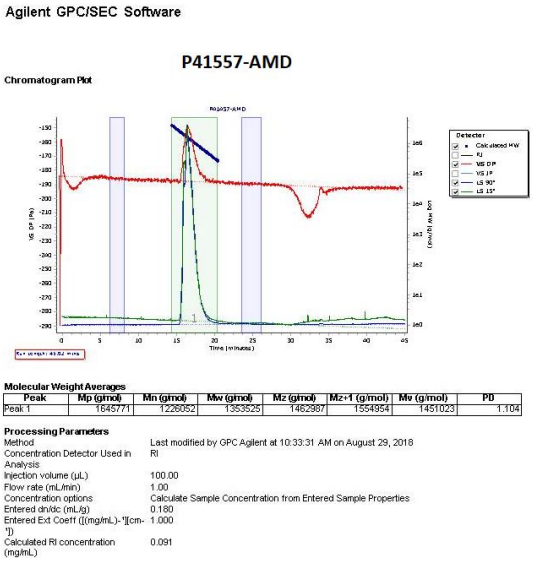
Characterization:
The polymer was characterized by size exclusion chromatography (SEC) using State-of-the-art Agilent Technologies 1260 Infinity II GPC system Equipped with triple detector:

Solvent (mobile phase) 2% acetic acid in Millipore water
Filtration: 0.45 µNylon Syringe Filter
Columns: Agilent three columns
Flow Rate: 1 ml/min
Injection Volume: 100 µL
Column Temperature: 30 °C
Calibration of Instrument using PEO polymer.

Note: Polyacrylamide bearing Mw > 1M are difficult to filter therefore this equipment is highly sensitive where less than 1mg/ml polymer solution can be detected by triple detector.

Solubility:
Polymer is soluble in water.

SEC Profile of the Polymer:



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	1645771	1226052	1353525	1462987	1554954	1451023	1.104

Processing Parameters

Method	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 dn/dc (mL/g)	0.180
Entered Ext Coeff ([(mg/mL)-1][cm-1])	1.000
Calculated RI concentration (mg/mL)	0.091