



Product Profile

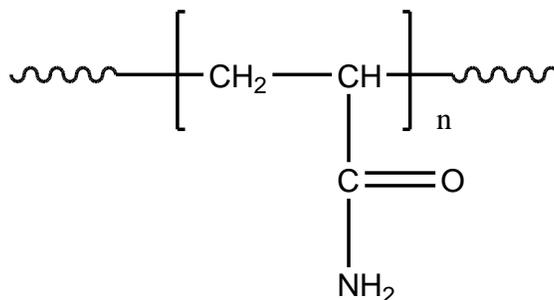
Identification

Product Name: Poly(Acrylamide)

Product Lot Number: P41563-AMD

CAS #: 9003-05-8

Chemical Architecture:



Composition:

| | |
|-------------------------------------|----------------|
| Mn (g/mole) | 192,000 |
| Mw (g/mole) | 235,000 |
| Mw/Mn | 1.22 |
| Tg (°C) | 184 |
| dn/dc (mL/g) in THF at 30 °C | 0.180 |

Method of Synthesis

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

Solubility in different solvents:

| | |
|---------|---|
| Water | √ |
| THF | X |
| Alcohol | X |

Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC Profile:

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

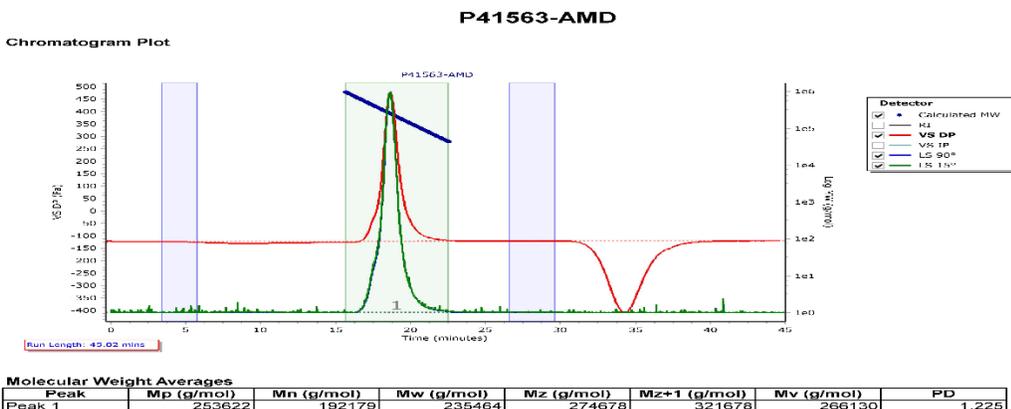
Injection Volume: 100 µL

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.

Agilent GPC/SEC Software



B. DSC thermogram for the polymer:

