

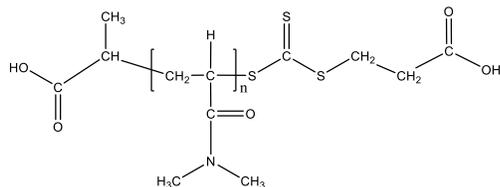
# Product Profile

## Identification

**Product Name:** Poly(N-N-dimethylacrylamide)

**Product Lot Number:** P41426-R-DMA

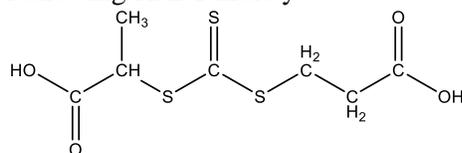
**Product Chemical Architecture:**



**Composition:**

<b>Mn (g/mole)</b>	<b>109,000</b>
<b>MW (g/mole)</b>	<b>157,000</b>
<b>MW/Mn</b>	<b>1.44</b>
<b>dn/dc (mL/g)</b>	<b>0.165 in water</b>

**Method of Synthesis** The polymer is prepared by RAFT polymerization process using Following RAFT moiety:



**Solubility in different solvents**

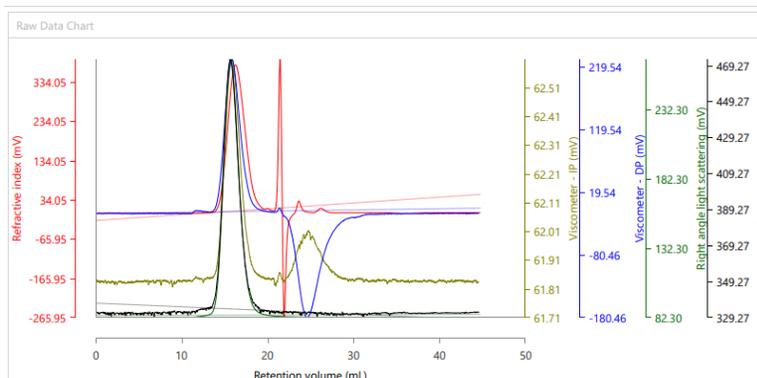
THF	√	DMF	√
Alcohol	√	CHCl3	√
Toluene	X	DMSO	√

## Validation of Architecture

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

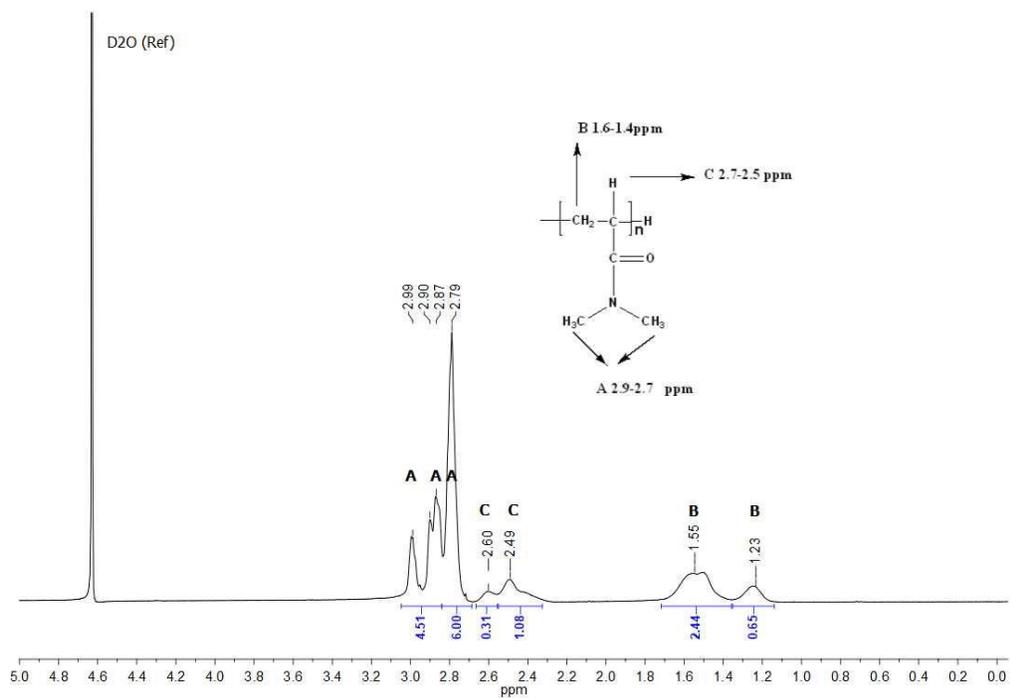
Polymer Source

Malvern Analytical



Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P41426, Injection 1, Peak 1	16.25	108,655	156,513	138,995	225,388	1.44

**B. NMR (HNMR) OF PDMA general**



**C. Dependence of glass transition temperature (T<sub>g</sub>) of PDMA from its molecular weight:**

