

# Product Profile

## Identification

**Product Name:** Poly(N-vinyl pyrrolidone)

**Synonym(s):** PVP PVP, Polyvidone, Povidone.

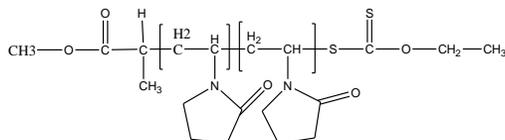
**Linear Formula:** (C<sub>6</sub>H<sub>9</sub>NO)<sub>n</sub>

CAS: 9003-39-8

**Polyvinylpyrrolidone (PVP)**, also commonly called **polyvidone** or **povidone**, is a water-soluble polymer available in a range of molecular weights, and can be selected according to the desired application properties.

**Product Lot Number:** P44850-NVP

## Product Chemical Architecture:

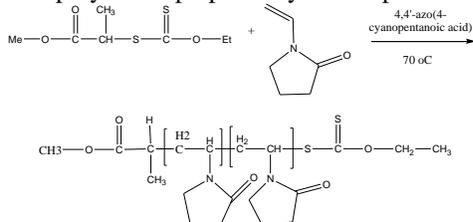


## Composition:

<b>Mn (g/mole)</b>	<b>5,000</b>
<b>MW (g/mole)</b>	<b>12,000</b>
<b>Mw/Mn</b>	<b>2.4</b>
<b>dn/dc (mL/g)</b>	<b>Temperature: 30oC, dn/dc = 0.175 ml/gram.</b>

## Method of Synthesis

The polymer is prepared by RAFT process.



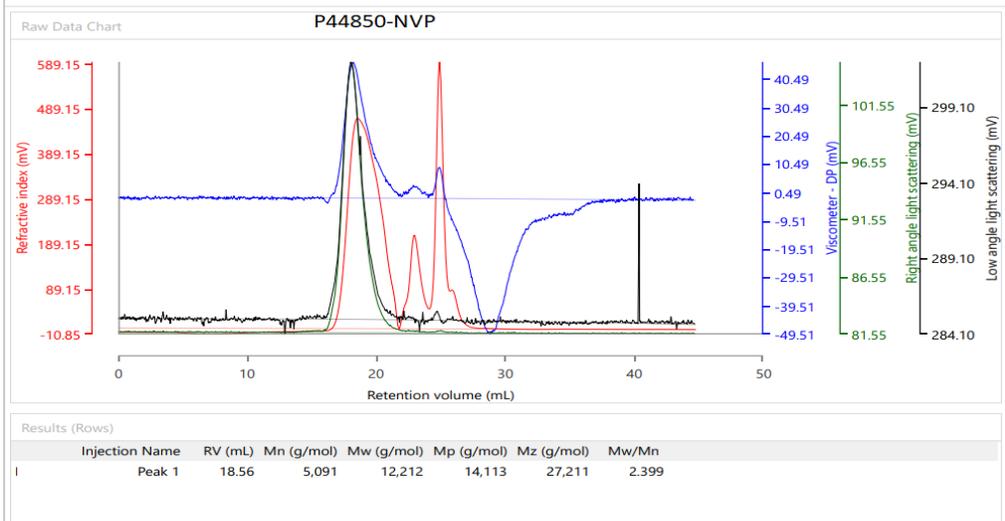
## Solubility in different solvents

DCM	√	Ethanol	√
CHCl <sub>3</sub>	√	Ethylene glycol	√
Water	√	DMSO	√

## Validation of Architecture

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

Molecular weights were determined by Malvern OmniSec Reveal & Resolve GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LALS 7°) and two columns (A600M General Mixed 300×7.5 mm, Viscotek). 0.25 M NaNO<sub>3</sub> + 0.01M NaH<sub>2</sub>PO<sub>4</sub> (PH=7) in water was the eluent. The flow rate was 1.0 ml/min.



**B. NMR (HNMR) OF polymer in CdCl<sub>2</sub>**

