

# Product Profile

## Identification

Product Name: **Poly(N-vinyl pyrrolidone),  $\alpha$ -mesylate-terminated**

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

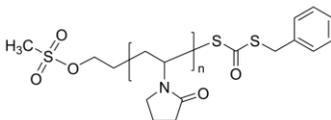
**Linear Formula:**  $(C_6H_9NO)_n$ Mesylate

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: P44858-NVP-Mesylate**

**Product Chemical Architecture:**

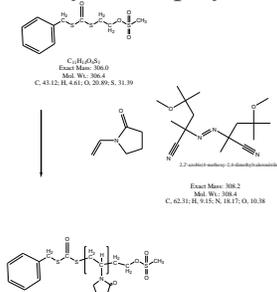


## Composition:

<b>Mn (g/mole)</b>	<b>9,000</b>
<b>MW (g/mole)</b>	<b>15,000</b>
<b>Mw/Mn</b>	<b>1.6</b>
<b>dn/dc (mL/g)</b>	<b>Temperature: 30oC, dn/dc = 0.175 ml/gram.</b>

## Method of Synthesis

Poly(N-vinyl pyrrolidinone) was synthesized by RAFT polymerization.



## Solubility in different

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

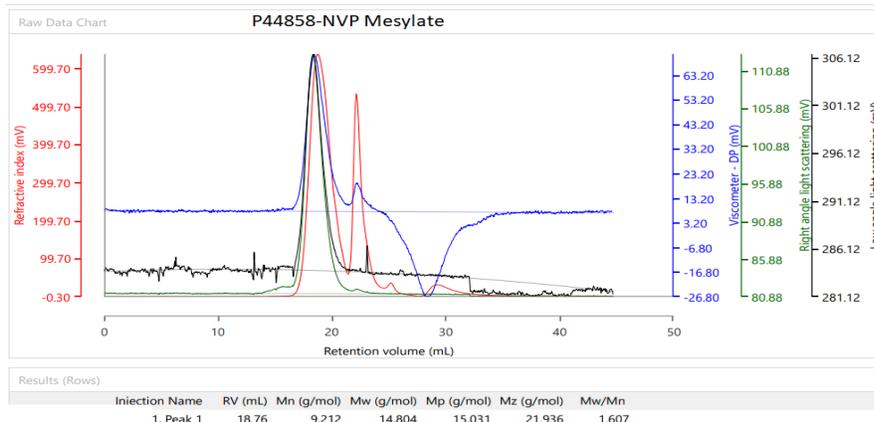
## Validation of Architecture

### 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.

Polymer Source

Malvern Panalytical 



### B. HNMR spectrum of the Sample:

