

# Product Profile

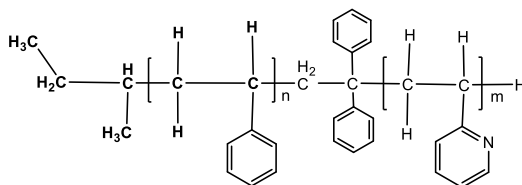
## Identification

**Product Name:** Poly(styrene-b-2-vinyl-pyridine)

**Product Lot Number:** P44543-S2VP

**CAS #:** 24980-54-9

**Product Chemical Architecture:**



**Composition:**

<b>Composition (S-b-2VP)</b>	<b>20,000-b-12,000</b>
<b>2VP mole%</b>	<b>37.0</b>
<b>Mw/Mn</b>	<b>1.12</b>
<b>dn/dc (mL/g) in DMF at 35 °C</b>	<b>1.6</b>

## Method of Synthesis

The polymer is synthesized by anionic polymerization process.

**Solubility in different solvents:**

THF	√	DMF	√
Alcohol	<b>Depends on composition</b>	CHCl <sub>3</sub>	√
Toluene <sub>(hot)</sub>	√	Water	<b>X</b>

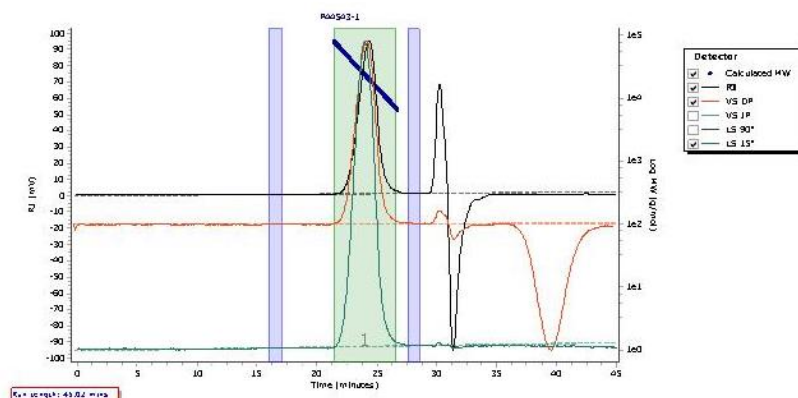
## Validation of Architecture

### 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 (PSS, SDV, 8x300 mm). DMF with 0.023M LiBr was the eluent. The flow rate was 0.7 ml/min.

P44543-1

Chromatogram Plot

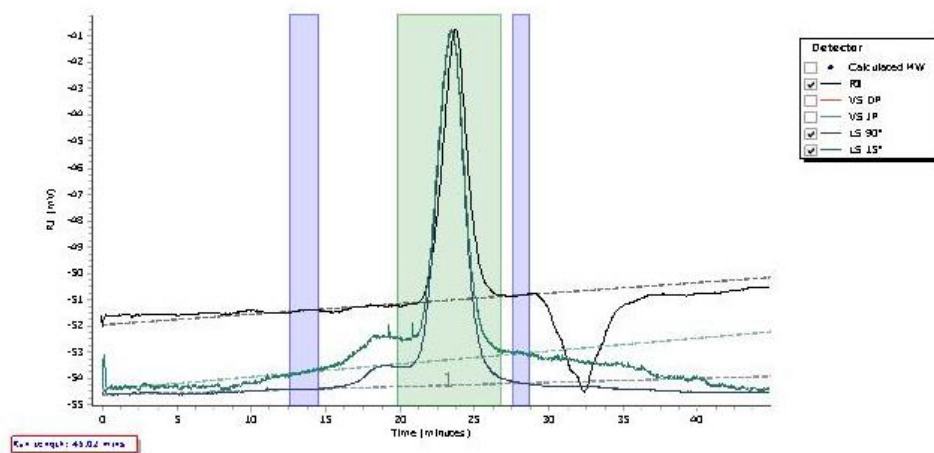


Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	19850	20009	22631	25602	26941	25098	1.131

Chromatogram Plot

P44543-S2VP



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	33691	31910	35915	40139	44559	39150	1.126

## B. NMR ( $^1\text{H}$ NMR) of S2VP in $\text{CHCl}_3$

