

# Product Profile

## Identification

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

**Product Lot Number:** P3021-R-S2VP

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

**Product Chemical Architecture:**



**Composition:**

Composition (S-b-2VP)	209,000-b-18,000
2VP mole %	7.8
Mn (g/mole)	227,000
Mw (g/mole)	253,000
Mw/Mn	1.11
dn/dc (mL/g) in DMF at 35 °C	0.164

## Method of Synthesis

The polymer is synthesized by anionic polymerization process.

**Solubility in different solvents:**

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

## Validation of Architecture

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

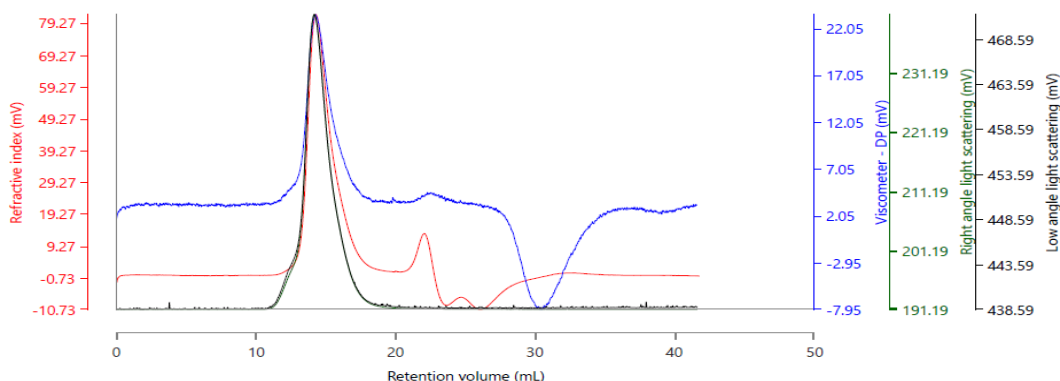
Molecular weights were determined by Malvern OmniSec Reveal & Resolve GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LALS 7°) and two columns (PSS, SDV, 8x300 mm). DMF with 0.023M LiBr was the eluent. The flow rate was 0.7 ml/min.

Polymer Source

Malvern Panalytical



Raw Data Chart



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P3021, Injection 1, Peak 1	14.31	226,778	252,607	232,247	352,319	1.114

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

