

Product Profile

Identification

Product Name: Poly(styrene-b-4-vinyl-pyridine)

Product Lot Number: P10972-R-S4VP

CAS #: 26222-40-2

Product Chemical Architecture:



Composition:

| Composition (S-b-4VP) | 9,500-b-8,500 |
|------------------------------|---------------|
| 4VP mole% | 47.4 |
| Mn (g/mole) | 18,000 |
| Mw (g/mole) | 19,000 |
| Mw/Mn | 1.06 |
| dn/dc (mL/g) in DMF at 35 °C | 0.159 |

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

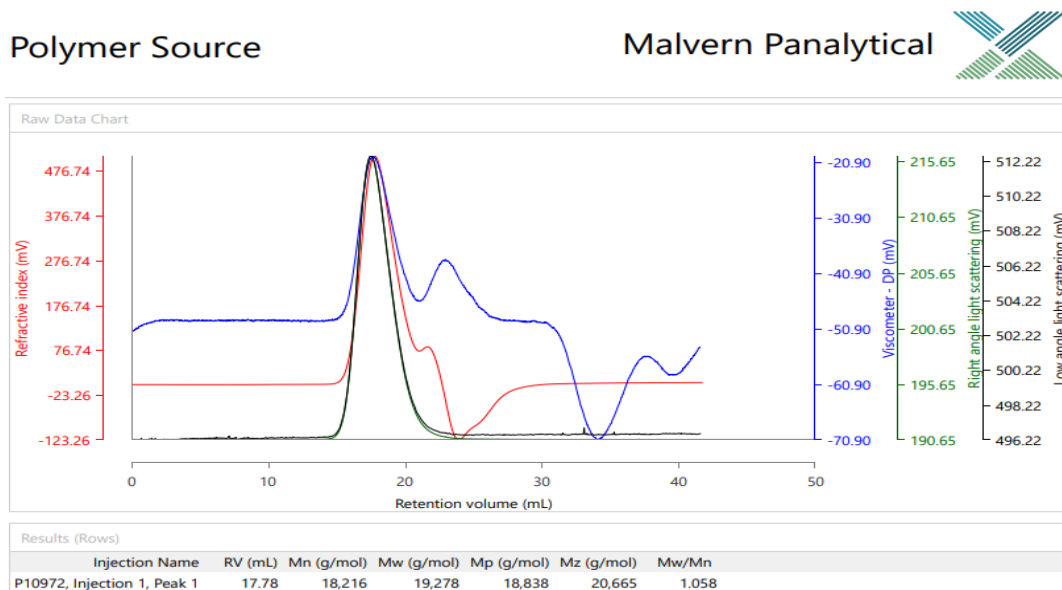
Solubility in different solvents:

| | | | |
|--------------------------|------------------------|-------------------|---|
| THF | Depends on composition | DMF | ✓ |
| Alcohol | Depends on composition | CHCl ₃ | ✓ |
| Toluene _(hot) | X | 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.



B. NMR (^1H NMR) of S4VP in CDCl_3 , 500 MHz

P10972-R
Company Polymer Source
1d_proton_16scans CDCl_3 {D:\Polymer_Source} PSource 51

