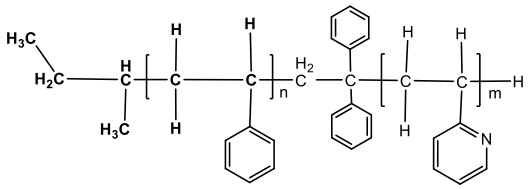
Product Profile

Identification

Product Name: Poly(styrene-b-2-vinyl-pyridine)
Product Lot Number: P4923-R-S2VP
CAS #: 24980-54-9
Product Chemical Architecture:



Composition:

Composition (S-b-2VP)	170,000-b-16,000
2VP mole%	8.7
Mn (g/mole)	186,000
Mw (g/mole)	189,000
Mw/Mn	1.02
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:

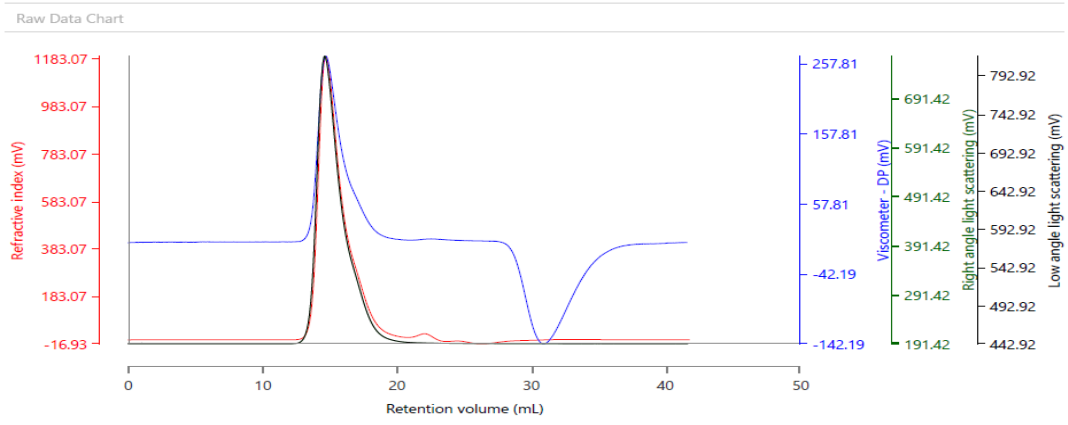
THF	√	DMF	√
Alcohol	**Depends on composition**	$CHCl_3$	√
$Toluene_{(hot)}$	√	Water	**X**

Validation of Architecture

A. <u>Gel Permeation Chromatography (GPC), SEC Profile:</u>

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



Results (Rows)

Injection Name	RV (mL)	Mn (g/mol)	Mw (g/mol)	Mp (g/mol)	Mz (g/mol)	Mw/Mn
P4923, Injection 1, Peak 1	14.72	185,791	189,389	184,261	194,442	1.019

B. **NMR (H^1NMR) of S2VP in $CHCl_3$**