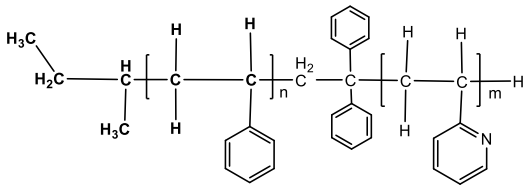
Product Profile

Identification

Product Name: Poly(styrene-b-2-vinyl-pyridine)
Product Lot Number: P10489-R-S2VP
CAS #: 24980-54-9
Product Chemical Architecture:



Composition:

Composition (S-b-2VP)	143,000-b-47,000
2VP mole%	24.6
Mn (g/mole)	190,000
Mw (g/mole)	194,000
Mw/Mn	1.02
dn/dc (mL/g) in DMF at 35 °C	0.16

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

Solubility in different solvents:

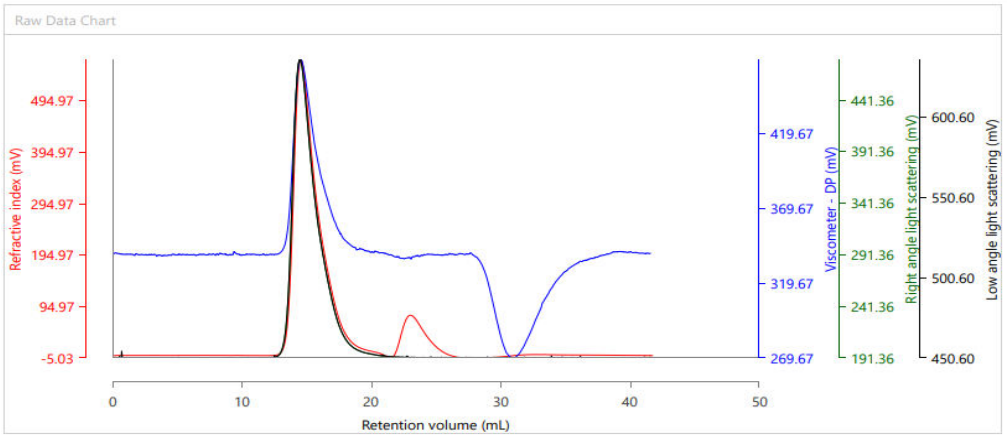
THF	√	DMF	√
Alcohol	**Depends on composition**	$CHCl_3$	√
$Toluene_{(hot)}$	√	Water	**X**

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
P10489, Injection 1, Peak 1	14.57	190,251	193,553	193,388	197,904	1.017

B. **NMR (H^1NMR) of S2VP in $CHCl_3$ (500MHz)**