

Product Profile

Identification

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

Product Lot Number: P9276-R-S2VP

CAS #: 24980-54-9

Product Chemical Architecture:



Composition:

Composition (S-b-2VP)	480,000-b-18,000
2VP mole %	3.6
Mn (g/mole)	498,000
Mw (g/mole)	512,000
Mw/Mn	1.03
dn/dc (mL/g) in DMF at 35 °C	0.165

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

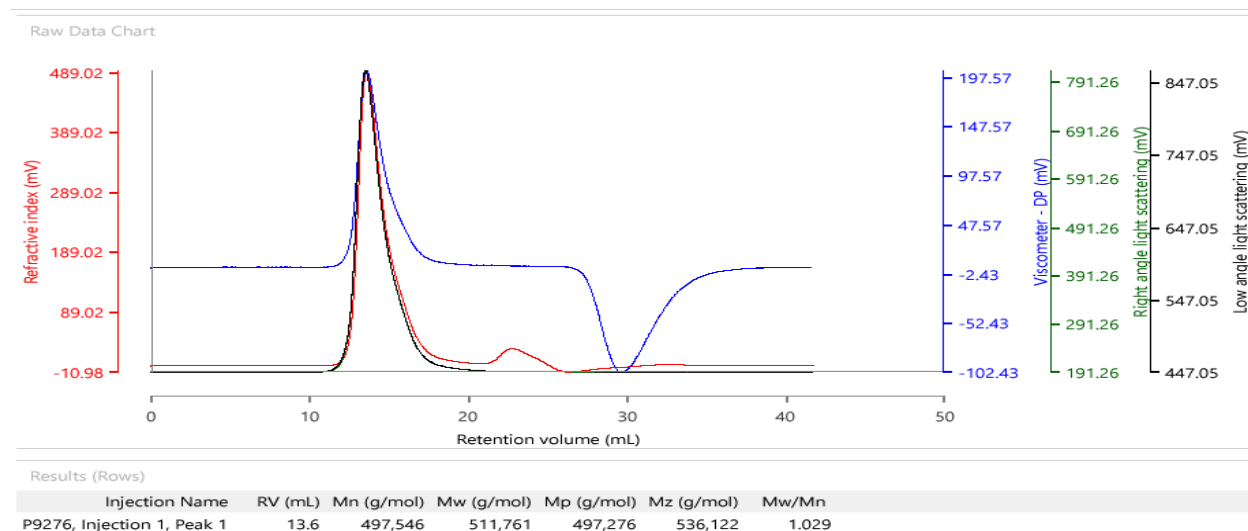
Solubility in different solvents:

THF	√	DMF	√
Alcohol	Depends on composition	CHCl ₃	√
Toluene _(hot)	√	Water	X

Validation of Architecture

A. 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.



1H NMR spectrum of P9276-S2VP in CDCl₃. The spectrum shows peaks at approximately 8.5 ppm (integration 1.00), 7.2-7.4 ppm (integration 137.74), and 4.5-5.5 ppm. An inset shows the chemical structure of the polymer with corresponding proton labels: H₃C (red), H (black), and H (green). The text "P9276-S2VP run in CdCl₃" is present in the spectrum area.