

# Product Profile

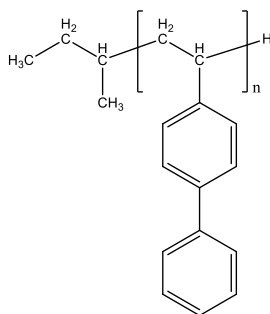
## Identification

**Product Name:** POLY(4-VINYL BIPHENYL)

**Product Lot Number:** P19864B-R-4VBP

CAS: 25232-08-0

**Product Chemical Architecture:**



## Composition:

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)	dn/dc (mg/mL) in THF
65.0	1.31	0.184

## Method of Synthesis

By anionic process.

## Solubility in different solvents

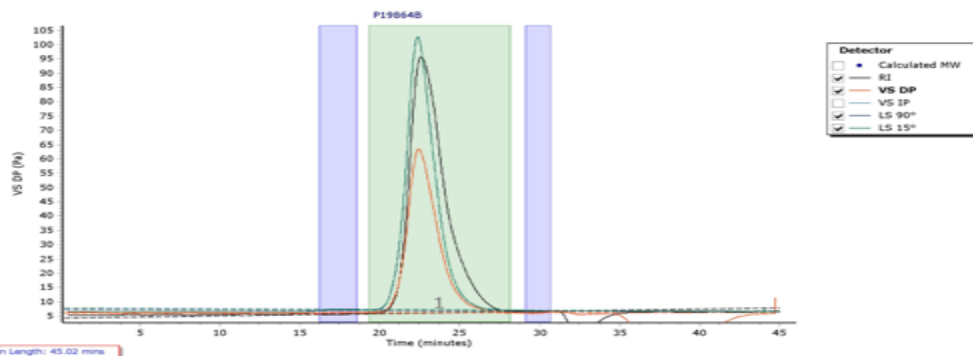
THF	√		
CHCl <sub>3</sub>	√	CHCl <sub>3</sub>	√
Toluene	√		

## Validation of Architecture:

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

#### P19864B

Chromatogram Plot

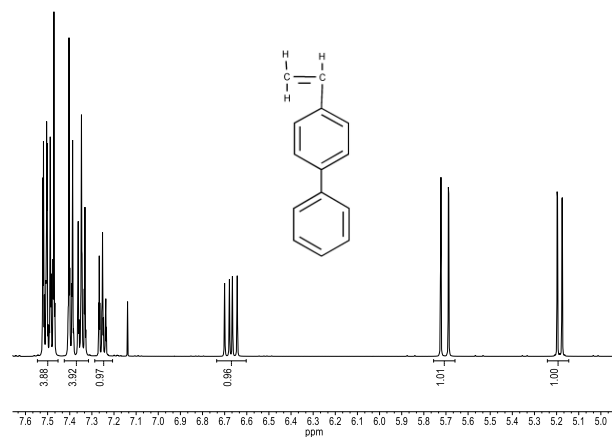


Molecular Weight Averages

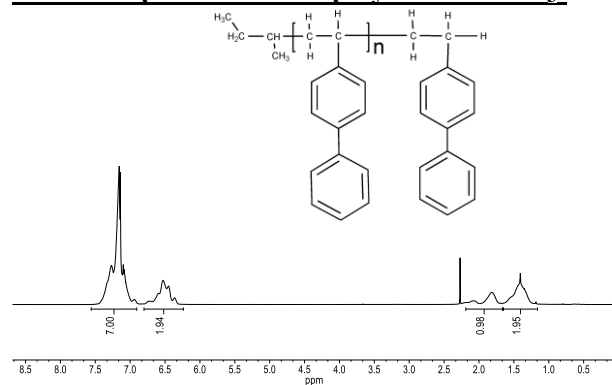
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	98376	65029	85446	103688	121297	101010	1.314

**B.  $^1\text{H}$  NMR spectrum of the monomer in  $\text{CDCl}_3$ :**

**$^1\text{H}$  NMR spectrum of the monomer in  $\text{CDCl}_3$ :**



**$^1\text{H}$  NMR spectrum of the polymer in  $\text{CDCl}_3$ :**



**C. Thermal analysis profile of polymers**

**DSC data for poly 4VBP polymers of different molecular weights**

Molecular weight ( $M_n$ )	Glass transition ( $T_g$ )
$9.5 \times 10^3$	105 °C
$30.0 \times 10^3$	135 °C
$75.5 \times 10^3$	141 °C
$530.0 \times 10^3$	151 °C