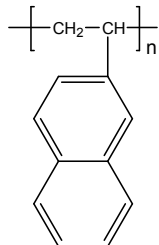


Sample Name: Poly (2-vinyl naphthalene)

Sample #: P40331-2VN

**Structure:**



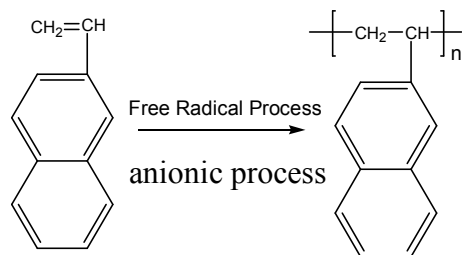
**Composition:**

| Mn x 10 <sup>3</sup> | PDI  |
|----------------------|------|
| 195.5                | 1.11 |

**Synthesis Procedure:**

Poly (2-vinyl naphthalene) is synthesized by free radical or anionic living polymerization of 2-vinyl naphthalene.

The reaction scheme is as below:



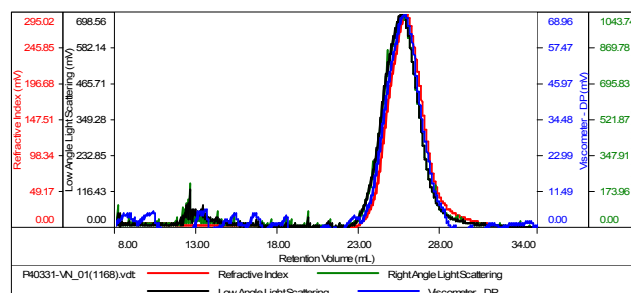
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) using THF as an eluent. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**SEC elugram of Homopolymer:**

**P40331-VN**

|                       |                          |
|-----------------------|--------------------------|
| Concentration (mg/mL) | 8.6411                   |
| Sample dn/dc (mL/g)   | 0.2300                   |
| Method File           | PS80K-Nb/2016-6-0000.vcm |
| Column Set            | 3x PL 1113-6300          |
| Solvent               | THF                      |



| Sample             | Mn (Da) | Mw (Da) | Mw/Mn | IV (dL/g) | Mp (Da) |
|--------------------|---------|---------|-------|-----------|---------|
| P40331-VN_01(1168) | 195,798 | 217,643 | 1.112 | 0.6658    | 210,609 |

**For the details of the analysis please read our following publication:**

Faquan Zeng, Mu Yang, Jianxin Zhang, **Sunil K. Varshney**, "Synthesis and characterization of block copolymers from 2-vinylnaphthalene by anionic polymerization" J. of Polymer Science, Journal of Polymer Science Part A: Polymer Chemistry, 40, 24, 4387-4397 2002.