

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

<b>Catalog No. :</b>	<u>220-94697-14</u>	<b>Lot No.:</b>	<u>A0149384</u>
<b>Description :</b>	<u>Custom VDA 278 Standard</u>		
<b>Container Size :</b>	<u>2 mL</u>	<b>Pkg Amt:</b>	<u>&gt; 1 mL</u>
<b>Expiration Date :</b>	<u>May 31, 2022</u>	<b>Storage:</b>	<u>0°C or colder</u>

Elution Order	Compound	CAS #	Percent Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Benzene	71-43-2	99%	100.3 µg/mL	+/- 0.7075 µg/mL
2	n-Heptane (C7)	142-82-5	99%	100.5 µg/mL	+/- 0.7092 µg/mL
3	Toluene	108-88-3	99%	100.0 µg/mL	+/- 0.7057 µg/mL
4	n-Octane (C8)	111-65-9	99%	100.3 µg/mL	+/- 0.7075 µg/mL
5	p-Xylene	106-42-3	99%	100.0 µg/mL	+/- 0.7057 µg/mL
6	n-Nonane (C9)	111-84-2	99%	100.5 µg/mL	+/- 0.7092 µg/mL
7	o-Xylene	95-47-6	99%	100.5 µg/mL	+/- 0.7092 µg/mL
8	n-Decane (C10)	124-18-5	99%	100.3 µg/mL	+/- 0.7075 µg/mL
9	2-Ethyl-1-hexanol	104-76-7	99%	100.3 µg/mL	+/- 0.7075 µg/mL
10	n-Undecane (C11)	1120-21-4	99%	100.0 µg/mL	+/- 0.7057 µg/mL
11	2,6-Dimethylphenol	576-26-1	99%	100.0 µg/mL	+/- 0.7057 µg/mL
12	n-Dodecane (C12)	112-40-3	99%	100.3 µg/mL	+/- 0.7075 µg/mL
13	n-Tridecane (C13)	629-50-5	99%	100.3 µg/mL	+/- 0.7075 µg/mL
14	n-Tetradecane (C14)	629-59-4	99%	100.5 µg/mL	+/- 0.7092 µg/mL
15	Dicyclohexylamine	101-83-7	99%	100.0 µg/mL	+/- 0.7057 µg/mL
16	n-Pentadecane (C15)	629-62-9	99%	100.5 µg/mL	+/- 0.7092 µg/mL
17	n-Hexadecane (C16)	544-76-3	99%	100.5 µg/mL	+/- 0.7092 µg/mL
18	Bis(2-ethylhexyl)adipate	103-23-1	99%	100.0 µg/mL	+/- 0.7057 µg/mL
<b>Solvent:</b>	P&T Methanol	67-56-1	99%		

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

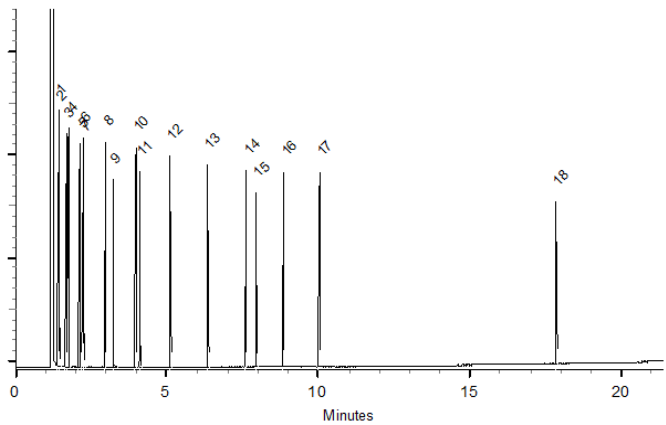
**Carrier Gas:**  
hydrogen-constant flow 1.8 mL/min.

**Temp. Program:**  
80°C (hold 0.1 min.) to 330°C  
@ 9.6°C/min. (hold 2.86 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
340°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Jessica McClenahan - Operations Technician I

**Date Mixed:** 21-May-2019      **Balance:** B251644995

  
Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 23-May-2019

---

## **General Reference Material Notes**

### **Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the RM are based on the unopened product being stored according to the recommended condition found in the storage field.

### **Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### **Uncertainty Value Notes:**

- Uncertainties are determined using data from balances and glassware, raw material purity, and, when significant, equipment tolerances or calibration results.

### **Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### **Handling Notes:**

- Samples should be transferred into deactivated vials for handling and storage.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.