

# Certificate of Composition

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

Catalog No. :	220-91535-13	Lot No.:	A0170308	
Description :	Custom 250 ug/mL Caffeine Standard			
Container Size :	20 mL	Pkg Amt:	> 20 mL	
Expiration Date :	March 31, 2024	Storage:	10°C or colder	

Elution Order	Compound	CAS #	Percent Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Caffeine	58-08-2	99%	251.4 μg/mL	+/- 1.4615 μg/mL
Solvent:	Water	7732-18-5	99%		

#### Column:

150mm x 4.6mm Ultra C18 5 um (cat.# 9174565)

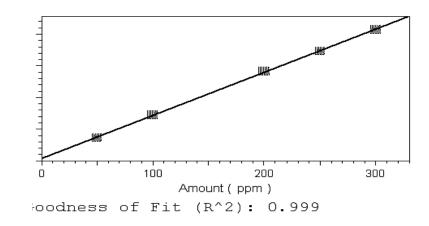
Flow Rate: 1 ml/min.

Mobile Phase A: H2O

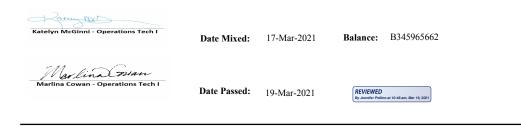
Mobile Phase B: Acetonitrile

Mobile Phase Composition: 25%B

Det. Type: Wavelength: 272 & 205 nm



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.



### **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/µECD, 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.