

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)

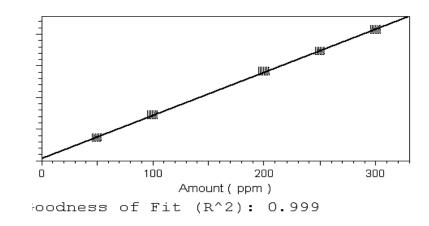
Flow Rate: 1 ml/min.

Mobile Phase A: H2O

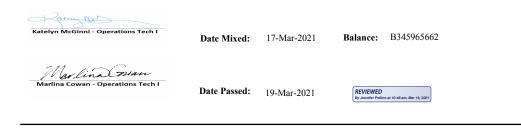
Mobile Phase B: Acetonitrile

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.