## Certificate of Analysis



Issue Date: 07.07.2023

STD-No.: A01269-4
Product name Caffeine
Concentration: 60 µg/ml
Solvent: Water

 Volume
 ≥ 1,2 ml

 Lot-No.:
 40032-001

 Expiry date:
 01/2025¹

Storage: 20°C and dark

only for information purposes

| Component  | Conc.<br>µg/ml | Purity  | CAS     | Formula   | M<br>[g/Mol] |
|------------|----------------|---------|---------|-----------|--------------|
| 1 Caffeine | 60 ±3,5 %²     | 99,9 %³ | 58-08-2 | C8H10N4O2 | 194,19       |

This Reference Material was processed under the producers ISO 9001:2015 registered quality system.

This Reference Material is intended as working reference sample for identification of the contained compounds and their quantification in methods of analysis in residue or environmental analysis

Traceability to the International System of Units (SI) has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on convenient physical or chemical measurements, including gravimetric or volumetric dilution. The balances used for these measurements are calibrated by an accredited calibration service.

The homogenity is determined according to an in-house procedure. There is no minimum sub-sample required.

Sample aliquots for analysis should be withdrawn at roomtemperature and should be processed without delay for the certified values to persist.

- <sup>2</sup> Expanded Uncertainty according to EURACHEM / CITAC "Quantifying Uncertainty in Analytical Measurement" with coverage factor k=2 for a conifdence level of 95 %.
- <sup>3</sup> Stated purity of the neat material is considered in the production of the solution.



<sup>&</sup>lt;sup>1</sup> The certification of this reference material is valid within the stated uncertainty until the above specified expiration date assumed the reference material is stored in the originally closed flask in accordance with the instructions given in this certificate. No warranty is given until the expiry date for the certificated values after opening. The long term stability may be monitored over the lifetime of the certification according to an in-house procedure. If substantive changes are determined that effect the certification before the expiration of this certificate, Campro Scientific GmbH will notify the purchaser.