

Certificate of Analysis (Isotopic Composition)

Caffeine Standard OAS
Cat No. B2216 – Certificate No. 422963

General

This Organic Analytical Standard (OAS) consists of a homogenous batch of caffeine for use as a routine working isotopic standard for the determination of the carbon and nitrogen isotopes ^{13}C and ^{15}N .

Certified Values and Uncertainty

The uncertainty in the quoted value is expressed as σ (1 standard deviation). Confidence limits include those due to sampling variation, weighing, calibration and measurement errors. The values are based upon the results of 25 determinations in two separate laboratories.

The value for carbon was determined by EA-IRMS and traceable to IAEA-CH-6 and IAEA-CH-7.

The value for nitrogen was determined by EA-IRMS and traceable to IAEA-600 and USGS40.

<i>Isotope</i>	<i>Certified value (‰)</i>	<i>SD (σ)</i>
$\delta^{13}\text{C}$ V-PDB	-32.63	0.06
$\delta^{15}\text{N}$ Air	-3.29	0.07

Expiration of Certification

The certification of this OAS is valid until 25th May 2028 within the measurement uncertainties specified.

Storage and use

This OAS should be stored between 20°C to 25°C and should be kept tightly sealed away from light and moisture. It is non-hygroscopic under normal conditions and can be used without preliminary drying.

Certification Information

The technical aspects involved in the preparation and issuance of this (In)Organic Analytical Standard (IAS/OAS) were carried out at Elemental Microanalysis Ltd, Okehampton, Devon EX20 1UB UK, Tel +44 1837 54446
Email enquiries@microanalysis.co.uk

For and on behalf of
Elemental Microanalysis Ltd

David Castle
Applications Specialist

