

# Certificate of Analysis

Orchard Leaves OAS  
Cat No. B2141 – Certificate No. 326600

## General

This Organic Analytical Standard (OAS) consists of a homogenous batch of Orchard Leaves plant tissue powder for use as a routine working analytical standard for the determination of Carbon, Nitrogen, Hydrogen and Sulphur.

## Certified Values and Uncertainty

The uncertainty in the certified value is expressed as expanded uncertainty, U, at 95% confidence and is calculated in accordance with ISO/IEC17025 according to GUM (Guidelines to Uncertainty in Measurement). Confidence limits include those due to sampling variation, weighing, calibration and measurement errors. The certified values are based upon the results of 20 determinations.

## Standards used in the certification of this material

NIST SRM Cystine 143d @ 29.99%C, 5.03%H, 11.66% N, 26.69%S  
EMA B2273 Alfalfa @ 42.78%C, 5.79%H, 2.52%N, 0.25%S

Values (Dried Basis)	Element	Certified value % w/w	Uncertainty (+/- %)
	Carbon	46.54	0.23
	Hydrogen	5.91	0.09
	Nitrogen	3.38	0.14
	Sulphur	0.156	0.011

## Drying instructions

A separate portion of this calibration material must be dried for two hours at 85°C prior to analysis. The dried sample should be stored in a desiccator and must be used within 24 hours. Any unused portion of the dried sample should be discarded.

**At time of certification, moisture content was approx. 3.5%**

## Expiration of Certification

The certification of this OAS is valid until 15-Mar-25 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.

The technical aspects involved in the preparation, certification 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, Fax +44 1837 54544, Email [info@microanalysis.co.uk](mailto:info@microanalysis.co.uk). Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Elemental Microanalysis Ltd be liable for incidental or consequential damages

For and on behalf of  
Elemental Microanalysis Ltd

Jon Davies  
Technical Director

