

# Certificate of Analysis

Fish gelatin powder standard  
Cat. No. B2215 – Certificate No.451296

## General

This Analytical Standard (OAS) consists of a homogenous batch of Gelatin(e) powder for use as a routine working laboratory standard in the determination of C, N, and S and of the stable isotopes  $^{13}\text{C}$ ,  $^{15}\text{N}$ , and  $^{34}\text{S}$ .

This gelatin(e) is of fish origin. Those with a fish allergy should handle with appropriate care.

## Values and Uncertainty

The uncertainty in the quoted values is expressed as  $\sigma$  (1 standard deviation). Confidence limits include those errors due to sampling variation, weighing, calibration and measurement.

This material may be used in method development, performance monitoring or as part of a quality control programme.

Values are traceable to primary standards issued by N.I.S.T. (143d Cystine), the I.A.E.A. (IAEA 600, S1 and S2) and USGS 40 and 41a.

*It is not intended for this to be a substitute for such primary standards.*

## Results

Nitrogen	% = 16.33	$\sigma = 0.08\%$	n = 20
	$^{15}\text{N}_{\text{V-AIR}} = +4.59\text{‰}$	$\sigma = 0.15\text{‰}$	n = 58
Carbon	% = 43.18	$\sigma = 0.24\%$	n = 20
	$^{13}\text{C}_{\text{V-PDB}} = -22.98\text{‰}$	$\sigma = 0.19\text{‰}$	n = 55
Sulfur	% = 0.41	$\sigma = 0.01\%$	n = 20
	$^{34}\text{S}_{\text{V-CDT}} = +0.69\text{‰}$	$\sigma = 0.30\text{‰}$	n = 25

## Expiration

The values quoted are valid until **06 July 2029** within the measurement uncertainties specified.

## Storage and Use

This OAS should be stored between 15°C to 25°C and should be kept tightly sealed away from light and moisture.

## 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

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