

## Certificate of Analysis

### Sodium carbonate reference standard traceable to NIST, AnStan®.

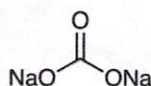
Product code:	<b>BS10203.</b>
Description:	<b>Sodium carbonate reference standard traceable to NIST, AnStan®.</b>
Chemical Name:	<b>Sodium carbonate.</b>
Pack:	<b>100 gm.</b>
CAS NO.:	<b>497-19-8.</b>
Mol. Weight:	<b>105.988 g/mol.</b>
Mol. Formula:	<b>Na<sub>2</sub>CO<sub>3</sub>.</b>
MDL Number:	<b>MFCD00003494.</b>
Melting point:	<b>851 °C.</b>
Boiling point:	<b>1600 °C.</b>
Density:	<b>2.54 g/cm<sup>3</sup>.</b>
Solubility:	<b>Soluble in water.</b>
Storage:	<b>Store at ambient temperature.</b>
Batch No:	<b>BS10203/10.</b>
Manufacture Date:	<b>30/06/2025.</b>
Expiry Date:	<b>29/06/2030.</b>

Test	Specification	Measured Values
Appearance (Colour):	White.	<b>White.</b>
Appearance (Colour):	Powder.	<b>Powder.</b>
Loss on drying:	<0.5%.	<b>0.15%.</b>

Assay by titration:	<b>99.91% (U = ±0.02%, k=2).</b>
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Note: - This material is only for laboratory purpose and not for human consumption.

**Note: Revised CoA – updated format (no change in batch data).**



#### **Certification & Traceability:**

This product was manufactured, processed and/or certified under a quality management system that complies with **ISO 17034:2016** and **ISO/IEC 17025:2017**.

The balances used in the preparation of this product are calibrated regularly, using a calibration provider that complies with **ISO/IEC 17025**. All standard components used in the manufacture of this product are pre-qualified and verified before use. This product was analysed according to protocol developed by NIST and is directly traceable to **NIST SRM 2192a**.

Tests were performed for capacity, readability, repeatability and linearity. This product is manufactured, packaged, stored, and shipped in accordance with good manufacturing practices that is certified to **WHO-GMP**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of **k=2**.

The combined uncertainty  $u$  is derived from combination of the squared uncertainty contributions:

$$U = k \times \sqrt{u^2 \text{Characterisation} + u^2 \text{Homogeneity} + u^2 \text{Stability}}$$

**uCharacterisation:**

Is the uncertainty in accordance with ISO/IEC 17025 which includes the contributions of the primary reference material and the measuring system.

**uHomogeneity:**

Is the between-bottle variation in accordance with ISO 17034. The assessment of homogeneity is performed by analysis of a representative number of systematically chosen sample units.

**uStability:**

Is the uncertainty obtained from short-term and long-term stability in accordance with ISO 17034. The stability studies are the basis for the quantification of the expiry date of this reference material for the unopened bottle.

**Validity Period:**

Briti Scientific standards ensure the accuracy of this product for 5 years from the manufacture date given above, provided the instructions for use are followed.

**Quality Certifications:**

This product was prepared under a quality management system that complies with the following:

**ISO 17034:2016:** Reference Materials Producer, CGI Certificate No. WGMP/22N2594 – General Requirements for the Competence of Reference Material Producers.

**ISO 17034** references additional requirements specified in ISO Guide 31 and ISO Guide 35.

**ISO/IEC 17025:2017:** Chemical Testing, CGI Certificate No. UG/23N256- General Requirements for the Competence of Testing and Calibration Laboratories.

**ISO 9001:2015** Certified: Quality Management Systems, CGI Certificate No. QMS/23N258.

**WHO-GMP** Certified: Good Manufacturing Practices, CGI Certificate No. WGMP/22N2594.

**Health and Safety Information:**

Refer to the Safety Data Sheet (SDS), which can be obtained at [www.britisscientific.com](http://www.britisscientific.com).

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This is a computer generated COA, no stamp or signature is required.



**N. Bharathi.**  
**Quality Control.**



**N.S. Mallika.**  
**Quality Assurance.**