

Certificate of Analysis

Buffer Solution pH 12.45 ± 0.05 @ 25°C, Traceable to NIST.

Product Code:	BSPH1245.
Description:	Buffer Solution pH 12.45 ± 0.05 @ 25°C, Traceable to NIST.
Pack Size:	500 ml.
Synonym:	NA.
CAS No.:	NA.
Mol. Weight:	NA.
Mol. Formula:	NA.
Solubility:	Miscible in water.
Accuracy:	± 0.05.
Storage:	Store at ambient temperature.
Batch No:	BSPH1245/74.
Manufacture Date:	19/05/2026.
Expiry Date:	18/05/2028.

Characteristics	Specification	Result
Appearance:	Clear colourless liquid.	Clear colourless liquid.
Odour:	Odourless.	Odourless.
pH:	12.40-12.50 @25°C.	12.450 @ 25°C.

Please Note: - This material is only for laboratory purpose and not for human consumption.

This product is prepared using high quality salts and deionized water. The results reported are of a sample taken from the above-mentioned lot during manufacture and measurements are in comparison to standards prepared from **NIST SRM 191d-I**, **NIST SRM 191d-II**, **NIST SRM 186-I-g**, and **NIST SRM 186-II-g**.

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**. This product was prepared to the certified concentrations shown above by gravimetric methods and analysed using a calibrated pH meter protocol and is directly traceable to **NIST SRM**.

The solution was diluted with filtered (0.22 µm), 18 M-ohm deionized water. 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. All volumetric dilutions are performed in Class A calibrated glassware.

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**.

Validity Period:

Briti Scientific standards ensure the accuracy of this product for 2 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:

17034:2016: Reference Materials Producer, CGI Certificate No. UG/25540 – 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. EU/26344- General Requirements for the Competence of Testing and Calibration Laboratories.

ISO 9001:2015 Certified: Quality Management Systems, CGI Certificate No. QMS/26343.

WHO-GMP Certified: Good Manufacturing Practices, CGI Certificate No. WGMP/25541.

Homogeneity:

This product was determined to be homogenous by procedures consistent with the requirements of **ISO 17034** and **ISO Guide 35**. Replicate samples of the finished solution were analysed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability.

Health and Safety Information:

Refer to the Safety Data Sheet (SDS), which can be obtained at www.britishtscientific.com.

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N.S. Mallika.
Quality Control.
K.S. Rao.
Quality Assurance.