

## Certificate of Analysis

**Buffer Solution pH 4.01 ± 0.02 @ 25°C, Traceable to NIST.**

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| Product Code:     | BSPH401.                                                  |
| Description:      | Buffer Solution pH 4.01 ± 0.02 @ 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:         | ± 0.02.                                                   |
| Storage:          | Store at ambient temperature.                             |
| Batch No:         | BSPH401/76.                                               |
| Manufacture Date: | 10/04/2026.                                               |
| Expiry Date:      | 09/04/2028.                                               |

| Characteristics | Specification            | Result                   |
|-----------------|--------------------------|--------------------------|
| Appearance:     | Clear colourless liquid. | Clear colourless liquid. |
| Odour:          | Odourless.               | Odourless.               |
| pH:             | 3.990-4.030 @25°C.       | 4.010 @ 25°C.            |

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 185 i**, **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](http://www.britishtscientific.com).

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