



Certificate of Analysis
Secondary Reference Standard NIST traceable

Buffer Solution pH~ 4.01 ± 0.05 @ 25° C

Molecular Formula:	NA	Lot No.:	P-012
Molecular Weight:	NA	Cat No.:	NIST -046
Packing :	500 mL	Dt. of Issue of Certificate:	06/05/2026
CAS No.:	NA	Dt. Of Mfr:	May 2026
Traceability:	To NIST SRM 185i	Exp. Dt. (Refer note below):	April 2028

Table : 1 Certified Value

Measurand /Constituent	Certified Value	Expanded Uncertainty (K=2)
pH at 25° C	4.01	±0.05

- This pH Standard Solution is prepared by using ISO 17034:2016 certified RM & comparing with buffer solution prepared from NIST Standard.

Metrological Traceability: The test result is traceable to Standard Reference Material of National Institute of Standards and Technology (USA), SRM 185i Potassium Hydrogen Phthalate.

Buffer Substance: Potassium Hydrogen Phthalate

Table: 2 Temperature Dependence information

Temperature (°C)	Δ pH	Temperature (°C)	Δ pH
5	+0.06	30	-0.01
10	+0.03	35	-0.02
15	+0.03	40	-0.03
20	+0.01	50	-0.06

Method: The result reported above was determined by analysis of a sample of this lot taken at time of manufacture. Test Method used was TPPHB. Measured with a combination glass electrode after multiple point calibration with reference materials. This certificate relates solely to the sample as received by the laboratory, bearing the catalogue number and lot number given above. The uncertainty of measurement has been calculated not to exceed ± 0.010pH at 95% confidence level, i.e. coverage factor k =2.

Accreditation: Sabiha Research And Development ltd. is accredited to ISO 17025:2017 by the National Accreditation board and testing calibration laboratory under scope for the test method, TPPHB, used to generate the above result. This accreditation deems Sabiha Research competent on a quality systems level and a technical level to perform the tests on the scope of accreditation. Sabiha research has the quality management system in place to ensure that each individual test result generated using TPPHB is technically valid and is supported by appropriate uncertainty measurements.

Intended use: This reference material is used for the calibration of pH meter.

Compliance: This Test Method is in accordance with IUPAC Recommendations 2002 Measurement of pH. Definition, Standards and Procedures.

- Do not freeze, store at room temperature, keep container tightly closed. Do not put back unused solution into original Bottle. For laboratory and industrial use only not for Human/Animal consumption.

Note: Expiry: Shall not exceed 12 months from the date of opening within the shelf life period.

QC Supervisor Sign---