RICCA CHEMICAL COMPANY®

Arlington, TX 76012
Pocomoke City, MD 21851
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Product Specification

CERTIFIED REFERENCE MATERIAL

Verispec® Buffer, Certified Reference Material, pH 10.00 ± 0.01 at 25°C Color Coded Blue

Manufactured and Tested in an ISO 17025/ISO 17034 Accredited Facility

Lot Number: SAMPLE **Product Number:** RV160100

Manufacture Date: N/A

Expiration Date: N/A

The certified value for this product is confirmed in independent testing by a second qualified chemist.
The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	50
pH	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	9.81

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Carbonate	497-19-8	ACS
Sodium Bicarbonate	144-55-8	ACS
Sodium Hydroxide	1310-73-2	Reagent (from ACS)
Preservative	Proprietary	
Blue Dye	Proprietary	

Test	Specification	Result	
Appearance	Blue liquid	Blue liquid	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	9.990-10.010	0.025	186-I-g, 186-II-g, 191d

Concept of certification and traceability statement:

pH measurement and certification were performed in our Arlington, TX, Pocomoke City, MD, or Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387) and ISO 17034 accreditation (ANAB Certificate AR-3140) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with the Guide to the Expression of Uncertainty in Measurement (GUM) using the uncertainty budget template available from NIST at https://www.nist.gov/system/files/documents/2017/04/28/uncertainty_budget_table_template_16jan2013.xlsx. Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Level of homogeneity:

The solution was mixed according to an in-house procedure and is guaranteed to be homogeneous.
To ensure sufficient homogeneity, mix thoroughly by inversion prior to each use.

Intended use:

For Laboratory Use Only
This CRM is intended for:

- Calibration of pH meters
- Validation of analytical methods

This statement is not intended to restrict the use for other purposes.

Instructions for the correct use of this reference material:

Dispense just enough of this buffer for immediate use. Rinse electrode(s) with one portion of buffer using a second portion for calibration. Buffer should not be diluted or returned to the bottle. Keep container tightly closed when not in use. Store at room temperature, away from fumes of acids or bases.

The pH is certified at 25°C only. The pH values at other temperatures are calculated and not measured for individual lots.

For each time the bottle is opened, the uncertainty of the certified value will increase by 0.0012 units.

Hazardous situation:

The normal laboratory safety precautions should be observed when working with this certified reference material. Refer to the Safety Data Sheet for detailed information on hazards associated with this material.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
RV160100-1A	1 L natural poly	18 months
RV160100-500A	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

This document is designed to comply with ISO 33401 "Reference Materials -- Contents of certificates, labels, and accompanying documentation."

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

Certificate # AR-3140

This Certificate of Analysis shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.