

Product Specification

Buffer Assortment Pack - pH 4, 7, and 10

Lot Number: SAMPLE

Product Number: 1480

Manufacture Date: N/A

Expiration Date: N/A

Consult the individual product lot Certificates of Analysis for specifications and test results.

Kit Component Part Number	Kit Component Lot Number	Kit Component Product Name
1501	SAMPLE	Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)
1551	SAMPLE	Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)
1601	SAMPLE	Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)
6648	SAMPLE	Rinse Solution, High Purity Water for Rinsing Electrodes and other Laboratory Instruments

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.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1480-20	20 x 20 mL pack	18 months
R1480000-3x4A	3 x 4 L natural poly	18 months
1480-16	1 Kit of 500 mL bottles	18 months

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

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Product Specification

Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)

Lot Number: SAMPLE

Product Number: 1501

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	45	50
pH	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	Buffer
Preservative	Proprietary	Commercial
Red Dye	Proprietary	Purified

Test	Specification	Result	NIST SRM#
Appearance	Red liquid	N/A	
pH at 25°C	3.990-4.010	N/A	185 & 186
pH at 25°C Uncertainty	0.01	N/A	

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer B	ASTM (D 5464)
Buffer B	ASTM (D 5128)

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.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1501-2.5	10 L Cubitainer®	24 months
1501-4	120 mL natural poly	24 months
1501-32CS	12 x 1L natural poly	24 months
1501-16CS	12 x 500 mL natural poly	24 months
1501-32	1 L natural poly	24 months
1501-32CT	1 L Cubitainer®	24 months
1501-20B	200 x 20 mL pack	24 months
1501-5	20 L Cubitainer®	24 months
1501-20	20 mL pouch	24 months
1501-20	20 x 20 mL pack	24 months
1501-1	4 L natural poly	24 months
1501-1CT	4 L Cubitainer®	24 months
1501-1CS	4 x 4 L natural poly	24 months
1501-16	500 mL natural poly	24 months
1501-55	55 gal drum	24 months

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

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Product Specification

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: SAMPLE

Product Number: 1551

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	45	50
pH	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Phosphate Dibasic	7558-79-4	ACS
Sodium Hydroxide	1310-73-2	
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Yellow Dye	Proprietary	
Preservative	Proprietary	

Test	Specification	Result	NIST SRM#
Appearance	Yellow liquid	N/A	
pH at 25°C	6.990-7.010	N/A	186 & 191
pH at 25°C Uncertainty	0.01	N/A	

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer A	ASTM (D 5464)
Buffer A	ASTM (D 5128)

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.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1551-2.5	10 L Cubitainer®	24 months
1551-4	120 mL natural poly	24 months
1551-32CS	12 x 1L natural poly	24 months
1551-16CS	12 x 500 mL natural poly	24 months
1551-32	1 L natural poly	24 months
1551-32CT	1 L Cubitainer®	24 months
1551-20B	200 x 20 mL pack	24 months
1551-5	20 L Cubitainer®	24 months
1551-20	20 mL pouch	24 months
1551-20	20 x 20 mL pack	24 months
1551-1	4 L natural poly	24 months
1551-1G	4 L amber glass	24 months
1551-1CT	4 L Cubitainer®	24 months

1551-1CS	4 x 4 L natural poly	24 months
1551-16	500 mL natural poly	24 months
1551-55	55 gal drum	12 months

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

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Product Specification

Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

Lot Number: SAMPLE

Product Number: 1601

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 Hydroxide	1310-73-2	Reagent
Sodium Bicarbonate	144-55-8	ACS
Preservative	Proprietary	
Blue Dye	Proprietary	

Test	Specification	Result	NIST SRM#
Appearance	Blue liquid	N/A	
pH at 25°C	9.990-10.010	N/A	186 & 191
pH at 25°C Uncertainty	0.01	N/A	

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
Buffer C	ASTM (D 5128)

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.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1601-2.5	10 L Cubitainer®	18 months
1601-4	120 mL natural poly	18 months
1601-32CS	12 x 1L natural poly	18 months
1601-16CS	12 x 500 mL natural poly	18 months
1601-32	1 L natural poly	18 months
1601-20B	200 x 20 mL pack	18 months
1601-5	20 L Cubitainer®	18 months
1601-20	20 mL pouch	18 months
1601-20	20 x 20 mL pack	18 months
1601-1	4 L natural poly	18 months
1601-1CT	4 L Cubitainer®	18 months
1601-1CS	4 x 4 L natural poly	18 months
1601-16	500 mL natural poly	18 months

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

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Product Specification

Rinse Solution, High Purity Water for Rinsing Electrodes and other Laboratory Instruments

Lot Number: SAMPLE

Product Number: 6648

Manufacture Date: N/A

Expiration Date: N/A

This product is suitable for use in rinsing laboratory electrodes and other laboratory instrumentation. This product is nonsterile and is not tested for microbial count.

Name	CAS#	Grade
Water	7732-18-5	

Test	Specification	Result
Appearance	Colorless liquid	N/A

This water is specially purified by conventional water softening, prefiltration, activated carbon organic adsorption, reverse osmosis, mixed bed triple deionization, ultraviolet light irradiation, and 0.2 micron membrane filtration. Consult RICCA CHEMICAL COMPANY Technical Reference Document TRD02 (for lot numbers starting with 1) or TRD03 (for lot numbers starting with 2) for details of the water purification process.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
6648-20B	200 x 20 mL pack	18 months
6648-20	20 mL pouch	18 months
6648-20	20 x 20 mL pack	18 months
6648-16	500 mL natural poly	18 months

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

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