



ChemPure Brand Chemicals
PO Box 5483
Plymouth, MI 48170
734-729-1805

Certificate of Analysis

Buffer Assortment Pack - pH 4, 7, and 10

Lot Number: 4601D97

Product Number: CP-4710

Manufacture Date:

Expiration Date: 05/09/2017

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	4512495	Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)
1551	4512914	Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)
1601	4511A01	Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (L-A-B Certificate L2387.02) 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 uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution.

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)
CP-A4710P	1 Kit of 500 mL bottles	18 months

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

Katie Schnur
Quality Control Manager

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Certificate of Analysis

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

Lot Number: 4512495

Product Number: 1501

Manufacture Date: DEC 02, 2015

Expiration Date: NOV 2017

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	Passed	
pH at 25°C	3.990-4.010	3.997	185 & 186
pH at 25°C Uncertainty	0.01	0.01	

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

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (L-A-B Certificate L2387.02) 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 uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution.

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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Certificate # L2387.02 Testing

Certificate of Analysis

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

Lot Number: 4512914

Product Number: 1551

Manufacture Date: DEC 16, 2015

Expiration Date: DEC 2017

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	Reagent
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Yellow Dye	Proprietary	
Preservative	Proprietary	

Test	Specification	Result	NIST SRM#
Appearance	Yellow liquid	Passed	
pH at 25°C	6.990-7.010	7.008	186 & 191
pH at 25°C Uncertainty	0.01	0.01	

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

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (L-A-B Certificate L2387.02) 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 uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution.

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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Certificate of Analysis

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

Lot Number: 4511A01

Product Number: 1601

Manufacture Date: NOV 17, 2015

Expiration Date: MAY 2017

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	Passed	
pH at 25°C	9.990-10.010	10.003	186 & 191
pH at 25°C Uncertainty	0.01	0.01	

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

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (L-A-B Certificate L2387.02) 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 uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution.

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
1601-55	55 gal drum	18 months

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



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