

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
Ε	Indicates the reported value is estimated because of the presence of interference
Μ	Indicates Duplicate injection precision not met.
Ν	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M OR	 Method qualifiers "P" for ICP instrument "PM" for ICP when Microwave Digestion is used "CV" for Manual Cold Vapor AA "AV" for automated Cold Vapor AA "AV" for automated Cold Vapor AA "CA" for MIDI-Distillation Spectrophotometric "AS" for Semi – Automated Spectrophotometric "C" for Manual Spectrophotometric "T" for Titrimetric "NR" for analyte not required to be analyzed Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
Н	Sample Analysis Out Of Hold Time



LAB CHRONICLE

OrderID: Client: Contact:	Q1036 ENTACT Wyatt Seel			OrderDate: Project: Location:	1/8/2025 1:06:0 E9306 - Northp N51,VOA Ref. 3	oint - 4101 Arth	nur Kill Rd	
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1036-01	NP-WS-002	WATER			01/08/25 10:30			01/08/25
			рН	9040C			01/08/25 15:30	







Report of Analysis

Client:	ENTACT		Dat	e Collected:	01/08/25 1	0:30
Project:	E9306 - Northpoint - 4101 A	Arthur Kill Rd	Dat	e Received:	01/08/25	
Client Sample ID:	NP-WS-002		SD	G No.:	Q1036	
Lab Sample ID:	Q1036-01		Ma	trix:	WATER	
			% S	Solid:	0	
Parameter	Conc. Qua. DF MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
рН	7.00 H 1 0	0	pH		01/08/25 15:30	9040C

Comments: pH result reported at temperature 20.4 °C

- U = Not Detected
- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
- Q = indicates LCS control criteria did not meet requirements
- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank

- E = Indicates the reported value is estimated because of the presence of interference.
- OR = Over Range
- N =Spiked sample recovery not within control limits

^{* =} indicates the duplicate analysis is not within control limits.



<u>QC RESULT</u> <u>SUMMARY</u>



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Initial and Continuing Calibration Verification

Client: Project:	ENTACT E9306 - Northpoin	nt - 4101 Arti	hur Kill Rd			SDG No.: Q1036 RunNo.: LB134	196
Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: H	ICV	рН	7.01	7	100	90-110	01/08/2025
Sample ID: H	CCV1	рĦ	2.01	2.00	101	90-110	01/08/2025
Sample ID: H	CCV2	рН	12.02	12.00	100	90-110	01/08/2025



Duplicate Sample Summary

alyte	Units	Acceptance Limit	Sample Result	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Client ID:	NP-WS-002DUP			Percent Sol	ids for Spil	ke Sample:	0		
Project:	E9306 - Northpoint - 4	101 Arthur Kill Ro	1	Sample ID:	Q	1036-01			
Client:	ENTACT			SDG No.:	Q1	036			



RAW DATA



Analytical Summary Report

	Reviewed By:Iwona
	On:1/8/2025 3:18:10
	PM
	nst Id :WC PH
Ν	METER-1

Analysis Method:	9040C
Parameter:	рН
Run Number:	LB134196

Analyst By	:	jignesh
Supervisor Review By	:	Iwona
Slope	:	98.6
pH Meter ID	:	WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3107
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER, COLOR CD 475ML	W3094
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3161
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	01/08/2025	14:25
2	CAL2	1	Water	NA	NA	20.2	7.00	01/08/2025	14:26
3	CAL3	1	Water	NA	NA	20.3	10.02	01/08/2025	14:30
4	ICV	1	Water	NA	NA	20.3	7.01	01/08/2025	14:33
5	CCV1	1	Water	NA	NA	20.3	2.01	01/08/2025	14:37
6	Q1032-01	1	Water	NA	NA	20.1	6.02	01/08/2025	14:45
7	Q1032-02	1	Water	NA	NA	20.3	7.06	01/08/2025	14 : 55
8	Q1032-03	1	Water	NA	NA	20.1	7.12	01/08/2025	15:00
9	Q1032-05	1	Water	NA	NA	20.6	5.73	01/08/2025	15:05
10	Q1032-06	1	Water	NA	NA	20.8	7.36	01/08/2025	15 : 15
11	Q1033-01	1	Water	NA	NA	20.1	7.39	01/08/2025	15:25
12	Q1036-01	1	Water	NA	NA	20.4	7.00	01/08/2025	15:30
13	Q1036-01DUP	1	Water	NA	NA	20.5	7.01	01/08/2025	15:31
14	CCV2	1	Water	NA	NA	20.2	12.02	01/08/2025	15 : 33

			WORKLIST (WORKLIST(Hardcopy Internal Chain)	lain)	apiner (N	9	
WorkList Name :	PH WATER P1036	WorkList ID :	ID: 186816	Department :	Wet-Chemistry	Da	Date: 01-08-2025 14-06-24	14-06-01
Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date Method	ethod
Q1032-01	50492	Water	7					
Q1032-02	0102-A			Cool 4 deg C	PSEG03	N41	01/08/2025 9040C	340C
		Water	ΡΗ	Cool 4 deg C	PSEG03	N41	011001005 00	001
u1032-03	0103-B	Water	На				011/00/2020 20400	2400
Q1032-05	0107 A				PSEG03	N41	01/08/2025 9040C)40C
202 - 202 - 4	A-1010	Water	Hq	Conl 4 den C	COCTOD			
Q1032-06	0107-B	Water		O Ron	LAEGUS	N41	01/08/2025 9040C	040C
V 1000 DI		אמובו	Ld	Cool 4 deg C	PSEG03	N41	01/08/2026 00400	001
41033-01 V	28612	Water	На				08 0707/00/10	504
a1036-01 L	CUC-S/M-dN				PSEG03	N41	01/08/2025 9040C	140C
	700-011	Water	Ha	Cool 4 deg C	ENTA05	N51	01/08/2025 00400	

ð Raw Sample Relinquished by:

Date/Time b, $\delta \gamma \beta$ Raw Sample Received by:

Page 1 of 1

Raw Sample Relinquished by:

161.30

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UP 134196



Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134196

Review By	jigr	nesh	Review On	1/8/2025 3:13:50 PM
Supervise By	lwc	ona	Supervise On	1/8/2025 3:18:10 PM
SubDirectory	LB	134196	Test	pH
STD. NAME		STD REF.#		
ICAL Standard		N/A		
ICV Standard		N/A		
CCV Standard		N/A		
ICSA Standard		N/A		
CRI Standard		N/A		
LCS Standard		N/A		
Chk Standard		W3107,W3093,W3094,	W3071,W3161,W3072	

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	01/08/25 14:25		jignesh	ок
2	CAL2	CAL2	CAL	01/08/25 14:26		jignesh	ОК
3	CAL3	CAL3	CAL	01/08/25 14:30		jignesh	ок
4	ICV	ICV	ICV	01/08/25 14:33		jignesh	ок
5	CCV1	CCV1	CCV	01/08/25 14:37		jignesh	ок
6	Q1032-01	50492	SAM	01/08/25 14:45		jignesh	ок
7	Q1032-02	0103-A	SAM	01/08/25 14:55		jignesh	ок
8	Q1032-03	0103-В	SAM	01/08/25 15:00		jignesh	ок
9	Q1032-05	0107-A	SAM	01/08/25 15:05		jignesh	ок
10	Q1032-06	0107-В	SAM	01/08/25 15:15		jignesh	ок
11	Q1033-01	28612	SAM	01/08/25 15:25		jignesh	ок
12	Q1036-01	NP-WS-002	SAM	01/08/25 15:30		jignesh	ок
13	Q1036-01DUP	NP-WS-002DUP	DUP	01/08/25 15:31		jignesh	ок
14	CCV2	CCV2	CCV	01/08/25 15:33		jignesh	ок



Prep Standard - Chemical Standard Summary

Order ID :	Q1036
Test :	рН
Prepbatch ID :	
Sequence ID/Qc Ba	Itch ID: LB134196,
Standard ID :	
Chemical ID : W3071,W3072,W30	93,W3094,W3107,W3161,



CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / Iwona	W3071
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / Iwona	W3072
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	4310g83	03/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3094
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / Iwona	12/09/2024 / Iwona	W3161

RICCA CHEMICAL COMPANY®

W³07/ Mc 12/6/23 Certificate of Analysis 12

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

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

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023 Expiration Date: JUL 2025

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 pH	0 7.12	5 7.09	$\begin{array}{c} 10 \\ 7.06 \end{array}$	15 7.04	20 7.02	$\begin{array}{c} 25 \\ 7.00 \end{array}$	30 6.99	35 6.98	$\begin{array}{c} 40 \\ 6.98 \end{array}$	45 6.97	50 6.97	

Name	CAS#				
Water	7732-18-5	ACS/ASTM/USP/I	RP		
Sodium Phosphate Dibasic	7558-79-4	ACS			
Potassium Dihydrogen Phosphate	7778-77-0	ACS			
Preservative	Proprietary	ROD			
Yellow Dye	Proprietary				
Sodium Hydroxide	1310-73-2				
Test	Specification	Result			
Appearance	Yellow liquid	Passed	*Not a certified value		
Test	Certified Value	Uncertainty	NIST SRM#		
pH at 25°C (Method: SQCP027, SQCP033)	7.002	0.02	186-I-g, 186-II-g, 191d		
Specification	Re	ference			
Commercial Buffer Solutions	AS	TM (D 1293 B)			
Buffer A		TM (D 5464)			
Buffer A		ГМ (D 5128)			

per industributions were periorined in our Batesvine, in laboratory under ISO/IEC 17025 accreditation (ANAB 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. 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
1551-5	20 L Cubitainer®	24 months

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

Foul Brandon

Paul Brandon (08/09/2023) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

RICCA CHEMICAL COMPANY[®] W^{3,072} M^c. (2/01/23) Certificate of Analysis

1841 Broad Street Pocomoke City, MD 21851 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Buffer, Reference Standard, pH 12.00 ± 0.01 at $25^{\circ}C$

Lot Number: 2310P21	Product Number: 1615	Manufacture Date: OCT 24, 2023
Lot Humper: 20101 21	110ddet Number, 1015	Expiration Date: APR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

°C	15	20	25	30	35	40
pН	12.35	12.17	11.99	11.78	11.62	11.46

Name	CAS#	Grade	
Water	7732-18-5	ACS/ASTM/USP/EP	
Potassium Chloride	7447-40-7	ACS	6.00
Sodium Hydroxide	1310-73-2	Reagent	
Test	Specification	Result	
Appearance	Colorless liquid	Passed *Not a certified va	alue

		and the second s		
Test	Certified Value	Uncertainty	NIST SRM#	
pH at 25°C (Method: SQCP027, SQCP033)		0.02	186-I-g, 186-II-g, 191d	

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) 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 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 Containe		
1615-1	4 L natural poly	18 months		
1615-16	500 mL clear PET-G	18 months		
1615-32	1 L natural poly	18 months		
1615-5	20 L Cubitainer®	18 months		

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

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Sharon Travers (10/24/2023) Operations Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

RICCA CHEMICAL COMPANY[®] 3^{003} 0^{001} Certificate of Analysis 0^{010}

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Manufacture Date: JAN 08, 2024

Expiration Date: DEC 2025

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

Product Number: 1551

°C pH	0 7.12	5 7.09	10 7.06	15 7.04	20 7.02	25 7.00	30 6.99	35 6.98	40 6.98	45 6.97	50 6.97		
Name						CA	S#		1.15	Grade			
Water						77	32-18-5			ACS/AS	STM/USP/I	С Р	
Sodiun	n Phosp	hate Di	basic			758	58-79-4	-		ACS			
Potassium Dihydrogen Phosphate					77	78-77-0			ACS				
Preserv	vative					Pro	prietar	У					
Yellow Dye						Proprietary							
Sodium	n Hydro	xide					.0-73-2	· .					
Test						Specification Result							
Appear	ance				LEC.		Yell	ow liqui	d	Pas	ssed	*Not a certified value	
<u>Fest</u>	Sec.				54-		Cert	ified Va	lue	Un	certainty	NIST SRM#	
pH at 2	5°C (M	ethod: S	QCP02	7, SQCP	033)		7.004	4		0.0	2	186-I-g, 186-II-g, 191d	
Specific	ation					Reference							
Comme	rcial Bu	ffer Sol	utions						ASTN	A (D 1293	B)		
Buffer A						ASTM (D 5464)							
Buffer A	1								ASTN	4 (D 5128			

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)
1551-1	4 L natural poly	24 months
1551-1CT	4 L Cubitainer®	24 months
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months
Decommonded Steven 1500	0000 (F007)	

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

Lot Number: 4401F99

Paul Drondon

Paul Brandon (01/08/2024) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

RICCA CHEMICAL COMPANY°

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Certificate of Analysis

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

The cer	umber: tified valu	e for this	product is	confirme	d in inder	Numbe	sting by a	- second a	ualified o]	facture Date: OCT 09, 2023 Expiration Date: MAR 2025 res are accurate to ± 0.05.	
°C pH	0 10.31	5 10.23	10 10.17	15 10.11	20 10.05	25 10.00	30 9.95	35 9.91	40 9.87	50 9.81	res are accurate to ± 0.05 .	
Name						CA	S#			Grade		
Water						773	32-18-5			ACS/ASTM/USP/	EP	
Sodiur	n Carbo	nate				497-19-8 ACS				T		
Sodiur	n Bicarl	oonate				144	-55-8			ACS		
Sodiur	n Hydro	xide				131	0-73-2			Reagent		
Preser	vative						Proprietary					
Blue D	ye						prietary	· ·			· · · ·	
Test							Spec	ification		Result		
Appear	ance						Blue	e liquid		Passed	*Not a certified value.	
Test					1.1.1	120	Cert	ified Val	ue	Uncertainty	NIST SRM#	
pH at 2	25°C (M	ethod: S	QCP02	7, SQCI	2 033)		10.00)3		0.02	186-I-g, 186-II-g, 191d	
Specific	ation			1.2					Refe	rence		
Comme	rcial Bu	ffer Sol	utions							M (D 1293 B)		
Buffer (ASTM (D 5464)						
Buffer (7					ASTM (D 5128)						
comparis Standard a normal	ons. The u l Referenc distributi	incertaint e Materia on. Volum	y is calcul l, and the netric glas	lated from uncertain sware con	the unce ty of the provide	rtainty of measurem h Class A	the meas ent proce	d Reference urement v ss. The ur	ce Mater ariation certaint	fial as indicated above v from sample to sample, y is multiplied by k=2, o STM F 288 and NICE (cate L2387.02) and are certified ia an unbroken chain of the uncertainty in the NIST corresponding to 95% coverage in Circular 434; it is calibrated ses are calibrated regularly with	

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

I di ti tullibel	Size / Package Type	Shelf Life (Unopened Container)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months
Person and ad Steve and 1500		

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

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Paul Brandon (10/09/2023) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

RICCA CHEMICAL COMPANY

Certificate of Analysis

1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

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

Product Number: 1501

Manufacture Date: MAR 09, 2024 Expiration Date: FEB 2026

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 .

							-			^	0 1	
°C	0	5	10	15	20	25	30	35	40	45	50	
$_{\rm pH}$	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/H	ΞP		
Potassium Acid Phthalate	877-24-7	Buffer			
Preservative	Proprietary	Commercial	••		
Red Dye	Proprietary	Purified			
Test	Specification	Result			
Appearance	Red liquid	Passed	*Not a certified value		
Test	Certified Value	Uncertainty	NIST SRM#		
pH at 25°C (Method: SQCP027, SQCP033)	4.000	0.02	185i, 186-I-g, 186-II-g		
Specification	Reference				
Commercial Buffer Solutions	ASTM (D 1293 B)				
Buffer B	AS'	ГМ (D 5464)			

Buffer B

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB 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 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.

ASTM (D 5128)

Part Number	Size / Package Type	Shelf Life (Unopened Container)		
1501-2.5	10 L Cubitainer®	24 months		
1501-32	1 L natural poly	24 months		
1501-5	20 L Cubitainer®	24 months		

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

Foul Brandon

Paul Brandon (03/09/2024) Production Manager This document is designed to comply with ISO Guide 31 "Reference Materials --Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

RICCA CHEMICAL COMPANY[®] W3161 Rec. on 12/09/24 by IZ

Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25° C

Lot Number:	2411E26	Pr
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oduct Number: 1493

1841 Broad Street Pocomoke City, MD 21851 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Manufacture Date: NOV 11, 2024

Expiration Date: OCT 2026

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	10	15	20	25	30	35	40	45	50
pН	1.93	1.98	1.98	2.00	2.01	2.03	2.03	2.04	2.04

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result	
Appearance	Colorless liquid	Passed	*Not a certified value.
Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	1.994	0.02	185i, 186-I-g, 186-II-g

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) 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)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-1CT	4 L Cubitainer®	24 months
1493-2.5	10 L Cubitainer®	24 months
1493-32	1 L natural poly	24 months
Recommended Storage: 15°C	- 30°C (59°F - 86°F)	

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

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Jose Pena (11/11/2024) Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory



<u>SHIPPING</u> DOCUMENTS

PHINI EDITIANAE/COMPANY:		1. RECEIVED BY	Austin Farmeric		1. RELINQUISHED BY	REQUIRED TURNAROUND	SAMPLER							AIIN	LUCATION									
r Davis Mili ance	X		amaric ENTA		ED BY		A. Farmerie						Water Sample	SAMPLE DESCRIPTION		419-266-4671		Jersey City, NJ	150 Bay Street, Suite 801	Wyatt Seel	ENTACT LLC	COMPANY INFORMATION		ENTACT
25-3-1	1100	DATE	CT 1-8-25	1100	DATE	SAME DAY 22	(D						1-8-24	ION SAMPLE DATE					801					
PRINTED NAME/COMPANY:	SIGNATURE	2. RECEIVED BY	PRINTED NAME/COMPANY	SIGNATURE	2. RELINQUISHED BY	24 HOURS	SHIPMENT						4 10:30	E SAMPLE	- m	PHONE		ADDRESS	BILL TO		PROJECT		CHAIN	
MPANY:	D BY	MPANY:	MPANY:	ISHED BY	48 HOURS	courier						\$	SAMPLE		630-986-2900	Westmont, IL	999 Oakn Suite 300	ENTACT LLC	BILLING IN	North Point	PROJECT IN	OF CUSTODY		
						72 HOURS							WC	SAMPLE	PO#	000	it, IL 60559	999 Oakmont Plaza Drive Suite 300	Γ LLC	BILLING INFORMATION	bint	PROJECT INFORMATION	JSTO	
													Mixed	CONTAINER TYPE	E9306		9	a Drive				-		
-		D/			D,	DAYS							10	NUM	BER (OF C	ONT.	AINERS					RECORD	
		DATE			DATE								××		's (8 RA M		(601	0) plus co	onner	nicke			RD	
				1		10 DAYS	A					_	×	zinc,	cobalt s (808)	t, Iron	Alur	ninum, a	nd Tin		- 1	REC		
PRINTED NAME/COMPANY:	SIGNATURE:	Ŷ	PRINTER MAMERCOMPANY	SIGWTURE	3. RELINQUISHED BY	ROUTINE OTHER:	AIRBILL															REQUESTED ANALYSIS/METHOD		
		DATE		132/	DATE	Temp 3.3 C								COMMENTS									NO. 1 OF 2	QUUSO



Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
 Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488