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

DATA PACKAGE

GENERAL CHEMISTRY

PROJECT NAME : CON EDISON - 11TH AVE-WEST 50TH ST SITE

PARSONS ENGINEERING OF NEW YORK, INC.

301 Plainfield Road

Suite 350

Syracuse, NY - 13212

Phone No: 315-451-9560

ORDER ID : Q1739

ATTENTION : Stephen Liberatore

Laboratory Certification ID # 20012

Table Of Contents for Q1739

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : Q1739

Project ID : Con Edison - 11th Ave-West 50th St Site

Client : PARSONS Engineering of New York, Inc.

Lab Sample Number	Client Sample Number
Q1739-01	WC-LIQUID-20250404
Q1739-02	WC-LIQUID-20250404

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 3:11 pm, Apr 17, 2025

Date: 4/15/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

PARSONS Engineering of New York, Inc.
Project Name: Con Edison - 11th Ave-West 50th St Site
Project # N/A
Chemtech Project # Q1739
Test Name: pH,Flash Point,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
2 Water samples were received on 04/04/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Flash Point, Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TPH GC and VOC-TCLVOA-10. This data package contains results for pH,Flash Point,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:
The analysis of Flash Point was based on method 1010B, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034 and The analysis of pH was based on method 9040C.

D. QA/ QC Samples:
The Holding Times were met for all samples except for WC-LIQUID-20250404 of pH, as sample was receive out of holding time.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____ APPROVED
By Nimisha Pandya, QA/QC Supervisor at 3:11 pm, Apr 17, 2025

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

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
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	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	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 **"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
OR	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
H	Sample Analysis Out Of Hold Time

QA Control # A3040961

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1739 MATRIX: Water

METHOD: 1010B,9012B,9034,9040C

		NA	NO	YES
1.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2.	Matrix Spike Duplicate Recoveries Met Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Blank Spike met requirements for all samples.			
3.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
4.	Digestion Holding Time Met		✓	
	If not met, list number of days exceeded for each sample:			
	The Holding Times were met for all samples except for WC-LIQUID-20250404 of pH, as sample was receive out of holding time.			

ADDITIONAL COMMENTS:

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 12:50 pm, Apr 17, 2025

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1739

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: SOHIL JODHANI **Date:** 04/15/2025

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LAB CHRONICLE

OrderID:	Q1739	**OrderDate:**	4/4/2025 2:08:31 PM
Client:	PARSONS Engineering of New York, Inc.	**Project:**	Con Edison - 11th Ave-West 50th St Site
Contact:	Stephen Liberatore	**Location:**	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1739-02	**WC-LIQUID-20250404**	**Water**			**04/04/25 09:40**			**04/04/25**
			Flash Point	1010B			04/08/25 10:15	
			pH	9040C			04/07/25 16:56	
			Reactive Cyanide	9012B		04/07/25	04/08/25 11:28	
			Reactive Sulfide	9034		04/08/25	04/08/25 15:38	

SAMPLE DATA

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Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/04/25 09:40
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/04/25
Client Sample ID:	WC-LIQUID-20250404	SDG No.:	Q1739
Lab Sample ID:	Q1739-02	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Flash Point	>212		1	0	0	o F		04/08/25 10:15	1010B
pH	6.53	H	1	0	0	pH		04/07/25 16:56	9040C
Reactive Cyanide	0.00096	U	1	0.00096	0.0050	mg/L	04/07/25 15:00	04/08/25 11:28	9012B
Reactive Sulfide	0.43	U	1	0.43	1.00	mg/L	04/08/25 12:50	04/08/25 15:38	9034

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

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

QC RESULT SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Initial and Continuing Calibration Verification

Client: PARSONS Engineering of New York, Inc. **SDG No.:** Q1739

Project: Con Edison - 11th Ave-West 50th St Site **RunNo.:** LB135330

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.00	7	100	90-110	04/07/2025
Sample ID:	CCV1						
pH		pH	2.01	2.00	101	90-110	04/07/2025
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	04/07/2025

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Initial and Continuing Calibration Verification

Client:	PARSONS Engineering of New York, Inc.	**SDG No.:**	Q1739
Project:	Con Edison - 11th Ave-West 50th St Site	**RunNo.:**	LB135340

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Flash Point	o F	82.4	81	102	78-84	04/08/2025

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Initial and Continuing Calibration Verification

Client: PARSONS Engineering of New York, Inc. **SDG No.:** Q1739

Project: Con Edison - 11th Ave-West 50th St Site **RunNo.:** LB135341

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.09	0.099	91	85-115	04/08/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	04/08/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	04/08/2025
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	04/08/2025

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Initial and Continuing Calibration Blank Summary

Client: PARSONS Engineering of New York, Inc. **SDG No.:** Q1739

Project: Con Edison - 11th Ave-West 50th St Site **RunNo.:** LB135341

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/08/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/08/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/08/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/08/2025

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Preparation Blank Summary

Client: PARSONS Engineering of New York, Inc. **SDG No.:** Q1739

Project: Con Edison - 11th Ave-West 50th St Site

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB167495BL							
Reactive Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1	04/08/2025
Sample ID: PB167505BL							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	04/08/2025

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Duplicate Sample Summary

Client: PARSONS Engineering of New York, Inc.
SDG No.: Q1739
Project: Con Edison - 11th Ave-West 50th St Site
Sample ID: Q1735-02
Client ID: 0401-ADUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
pH	pH	+/-20	7.19		7.20		1	0.14		04/07/2025

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Duplicate Sample Summary

Client: PARSONS Engineering of New York, Inc.
SDG No.: Q1739
Project: Con Edison - 11th Ave-West 50th St Site
Sample ID: Q1735-04
Client ID: 0401-A-0401-B-COMPDUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Flash Point	o F	+/-2	>212.0		>212.0		1	0		04/08/2025

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Duplicate Sample Summary

Client: PARSONS Engineering of New York, Inc.
SDG No.: Q1739
Project: Con Edison - 11th Ave-West 50th St Site
Sample ID: Q1739-02
Client ID: WC-LIQUID-20250404DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Reactive Cyanide	mg/L	+/-20	0.00096	U	0.00096	U	1	0		04/08/2025
Reactive Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		04/08/2025

RAW DATA

Analytical Summary Report

Analysis Method: 9040C
Parameter: pH
Run Number: LB135330

Analyst By : jignesh
Supervisor Review By : Iwona
Slope : 98.2
pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3178
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER,COLOR CD 475ML	W3191
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	20.3	4.01	04/07/2025	16:25
2	CAL2	1	Water	NA	NA	20.2	7.01	04/07/2025	16:26
3	CAL3	1	Water	NA	NA	20.2	10.02	04/07/2025	16:30
4	ICV	1	Water	NA	NA	20.3	7.00	04/07/2025	16:33
5	CCV1	1	Water	NA	NA	20.2	2.01	04/07/2025	16:35
6	Q1735-02	1	Water	NA	NA	20.6	7.19	04/07/2025	16:38
7	Q1735-02DUP	1	Water	NA	NA	20.7	7.20	04/07/2025	16:39
8	Q1735-03	1	Water	NA	NA	20.7	7.18	04/07/2025	16:40
9	Q1739-01	1	Water	NA	NA	22.6	6.53	04/07/2025	16:55
10	Q1739-02	1	Water	NA	NA	22.6	6.53	04/07/2025	16:56
11	CCV2	1	Water	NA	NA	20.3	12.02	04/07/2025	17:00

Q1739-GENCHEM

WORKLIST(Hardcopy Internal Chain)

VB 135330

WorkList Name : ph w q1739 **WorkList ID :** 188786 **Department :** Wet-Chemistry **Date :** 04-07-2025 15:46:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1735-02	0401-A	Water	pH	Cool 4 deg C	PSEG03	L31	04/04/2025	9040C
Q1735-03	0401-B	Water	pH	Cool 4 deg C	PSEG03	L31	04/04/2025	9040C
Q1739-01	WC-LIQUID-20250404	Water	pH	Cool 4 deg C	PARS02	L31	04/04/2025	9040C
Q1739-02	WC-LIQUID-20250404	Water	pH	Cool 4 deg C	PARS02	L31	04/04/2025	9040C

22 of 85

Date/Time 04107125 1600

Raw Sample Received by: SR WC

Raw Sample Relinquished by: T.C (SW)

Date/Time 04107125 18:00

Raw Sample Received by: T.C

Raw Sample Relinquished by: SR Carl

Analytical Summary Report

Analysis Method: 1010B
Parameter: Flash Point
Run Number: LB135340
Thermometer ID: Flash Point

Reviewed By: rubina
Supervisor Review By: Iwona
Ambient Barometric Pressure(mmHg): 760.00
Barometric Scale ID: 0511064

Reagent/Standard	Lot/Log #
p-xylene (ICV)	W3193

Seq	LabID	True Value °F	DL	Initial Sample °C	Celsius °C	Result °F	Final Result °F	Anal Date	Anal Time
1	ICV	81	1	9	28.00	82.4	82.4	04/08/2025	08:45
2	Q1735-04		1	14	100.00	>212.0	>212.0	04/08/2025	09:15
3	Q1735-04DUP		1	14	100.00	>212.0	>212.0	04/08/2025	09:45
4	Q1739-02		1	15	100.00	>212.0	>212.0	04/08/2025	10:15

Result = (Celsius * 1.8) + 32

Final Result = Result + (760 - Ambient Barometric Pressure) * 0.06

WORKLIST(Hardcopy Internal Chain)

LB135340

WorkList Name : fp-4-07 **WorkList ID :** 188757 **Department :** Wet-Chemistry **Date :** 04-07-2025 08:12:38

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1735-04 A	0401-A-0401-B-COMP	Water	Flash Point	Cool 4 deg C	PSEG03	L31	04/04/2025	1010B
Q1739-02 A	WC-LIQUID-20250404	Water	Flash Point	Cool 4 deg C	PARS02	L31	04/04/2025	1010B

Date/Time 04/08/2025 08:35

Raw Sample Received by: RM (WC)

Raw Sample Relinquished by: (WC)

Date/Time 04/08/2025 10:5

Raw Sample Received by: (WC)

Raw Sample Relinquished by: RM (WC)

LB135

Test results | Aquakem 7.2AQ1 | Page: 1

CHEMTECH CONSULTING GROUP INC
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : NF | Instrument ID : Konelab

4/8/2025 11:34

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	89.849	0.0	0.077	
ICB1	-0.630	0.0	0.001	
CCV1	237.485	0.0	0.202	
CCB1	-0.871	0.0	0.000	
PB167498BL	-1.116	0.0	0.000	
Q1732-04	-1.149	0.0	0.000	
Q1732-04DUP	-1.028	0.0	0.000	
Q1737-02	-1.124	0.0	0.000	
Q1740-04	-1.127	0.0	0.000	
Q1743-04	-0.955	0.0	0.000	
Q1744-02	-0.913	0.0	0.000	
Q1744-04	-1.142	0.0	0.000	
Q1745-04	-0.902	0.0	0.000	
Q1745-12	-1.112	0.0	0.000	
CCV2	236.287	0.0	0.201	
CCB2	-0.950	0.0	0.000	
Q1746-02	-0.086	0.0	0.001	
Q1746-04	-1.151	0.0	0.000	
PB167505BL	-0.907	0.0	0.000	
Q1739-02	-1.052	0.0	0.000	
Q1739-02DUP	-1.133	0.0	0.000	
CCV3	236.140	0.0	0.201	
CCB3	-0.885	0.0	0.000	

N	23
Mean	33.979
SD	82.4423
CV%	242.62

Aquakem v. 7.2AQ1
Results from time period:
Tue Apr 08 10:05:28 2025
Tue Apr 08 11:31:21 2025

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-1.2556	µg/l	4/8/2025 10:23:40	
5.0PPBCN	A	Total CN	P	4.0682	µg/l	4/8/2025 10:23:41	
10PPBCN	A	Total CN	P	9.7741	µg/l	4/8/2025 10:23:42	
50PPBCN	A	Total CN	P	47.2117	µg/l	4/8/2025 10:23:43	
100PPBCN	A	Total CN	P	94.7045	µg/l	4/8/2025 10:23:44	
250PPBCN	A	Total CN	P	268.2905	µg/l	4/8/2025 10:23:45	
500PPBCN	A	Total CN	P	492.2065	µg/l	4/8/2025 10:23:46	
ICV1	S	Total CN	P	89.8489	µg/l	4/8/2025 10:58:17	
ICB1	S	Total CN	P	-0.6301	µg/l	4/8/2025 10:58:19	
CCV1	S	Total CN	P	237.4847	µg/l	4/8/2025 10:58:21	
CCB1	S	Total CN	P	-0.8714	µg/l	4/8/2025 10:58:23	
PB167498BL	S	Total CN	P	-1.1165	µg/l	4/8/2025 10:58:25	
Q1732-04	S	Total CN	P	-1.1494	µg/l	4/8/2025 10:58:26	
Q1732-04DUP	S	Total CN	P	-1.0279	µg/l	4/8/2025 11:05:52	
Q1737-02	S	Total CN	P	-1.1243	µg/l	4/8/2025 11:05:55	
Q1740-04	S	Total CN	P	-1.1269	µg/l	4/8/2025 11:05:56	
Q1743-04	S	Total CN	P	-0.9549	µg/l	4/8/2025 11:05:59	
Q1744-02	S	Total CN	P	-0.9126	µg/l	4/8/2025 11:06:00	
Q1744-04	S	Total CN	P	-1.1417	µg/l	4/8/2025 11:13:26	
Q1745-04	S	Total CN	P	-0.9016	µg/l	4/8/2025 11:13:29	
Q1745-12	S	Total CN	P	-1.1119	µg/l	4/8/2025 11:13:30	
CCV2	S	Total CN	P	236.2873	µg/l	4/8/2025 11:13:36	
CCB2	S	Total CN	P	-0.9505	µg/l	4/8/2025 11:20:59	
Q1746-02	S	Total CN	P	-0.0863	µg/l	4/8/2025 11:21:02	
Q1746-04	S	Total CN	P	-1.1509	µg/l	4/8/2025 11:21:04	
PB167505BL	S	Total CN	P	-0.907	µg/l	4/8/2025 11:21:08	
Q1739-02	S	Total CN	P	-1.0516	µg/l	4/8/2025 11:28:34	
Q1739-02DUP	S	Total CN	P	-1.1334	µg/l	4/8/2025 11:28:35	
CCV3	S	Total CN	P	236.1396	µg/l	4/8/2025 11:28:41	
CCB3	S	Total CN	P	-0.8852	µg/l	4/8/2025 11:28:43	

Calibration results Aquakem 7.2AQ1 Page: 1

CHEMTECH CONSULTING GROUP INC
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : NF Instrument ID : Konelab

4/8/2025 10:24

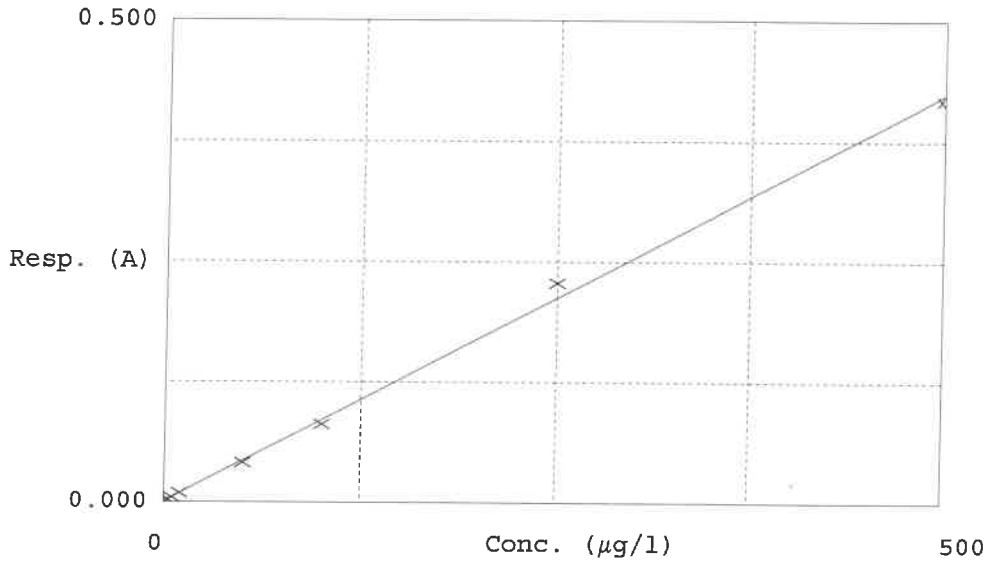
Test Total CN

Accepted 4/8/2025 10:24

Factor 1183
Bias 0.001

Coeff. of det. 0.997895

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.000	-1.2556	0.0000	
2	5.0PPBCN	0.005	4.0682	5.0000	-18.6
3	10PPBCN	0.009	9.7741	10.0000	-2.3
4	50PPBCN	0.041	47.2117	50.0000	-5.6
5	100PPBCN	0.081	94.7045	100.0000	-5.3
6	250PPBCN	0.228	268.2905	250.0000	7.3
7	500PPBCN	0.417	492.2065	500.0000	-1.6

Re

NF
04.08.2025

CHEMTECH

Analytical Summary Report

Analysis Method: 9034
Parameter: Reactive Sulfide
Run Number: LB135347

ANALYST: rubina
SUPERVISOR REVIEW BY: Iwona
Constant: 16000
Normality1: 0.025
Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE,0.025N,4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB167495BL		1	50	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	04/08/2025	15:35
2	Q1739-02		1	50	50	2.00	0.00	1.88	1.88	0.12	0.04	0.32	04/08/2025	15:38
3	Q1739-02DUP		1	50	50	2.00	0.00	1.88	1.88	0.12	0.04	0.32	04/08/2025	15:41

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Alliance TECHNICAL GROUP

Water Reactive Sulfide Preparation Sheet

PB167495

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : WATER

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : N/A

Start Digest Date: 04/08/2025 **Time :** 12:50 **Temp :** N/A

End Digest Date: 04/08/2025 **Time :** 14:20 **Temp :** N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: RM

Supervisor Signature: IR

Standared Name	MLS USED	STD REF. # FROM LOG
PBW	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP111004
FORMALDEHYDE	2.0ML	W2725
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

04/08/2025 RM

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Reactive Sulfide Preparation Sheet

PB167495

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167495BL	PBW495	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1739-02DUP	WC-LIQUID-20250404DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1739-02	WC-LIQUID-20250404	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rsul w-4-07 **WorkList ID :** 188760 **Department :** Distillation **Date :** 04-07-2025 08:17:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1739-02	WC-LIQUID-20250404	Water	Reactive Sulfide	Cool 4 deg C	PARS02	L31	04/04/2025	9034

Date/Time 04/08/2025 11.00

Raw Sample Received by: RM LWC

Raw Sample Relinquished by: [signature]

Date/Time 04/08/2025 15.00

Raw Sample Received by: [signature]

Raw Sample Relinquished by: RM LWC

Alliance TECHNICAL GROUP

Water Reactive Cyanide Preparation Sheet

PB167505

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-20

SDG No : N/A

Start Digest Date: ~~04/08/2025~~ 04/07/2025 **Time :** 15:00 **Temp :** N/A

Matrix : WATER

End Digest Date: ~~04/08/2025~~ 04/07/2025 **Time :** 16:30 **Temp :** N/A

Pippete ID : N/A

Balance ID : N/A

Hood ID : HOOD#1 **Digestion tube ID :** M5595 **Block Thermometer ID :** N/A

Block ID : MC-1, MC-2 **Filter paper ID :** N/A **Prep Technician Signature:** NF

Weigh By : N/A **pH Meter ID :** N/A **Supervisor Signature:** 12

Standared Name	MLS USED	STD REF. # FROM LOG
PBW	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP111294
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID		Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
~~04/07/2025~~ 04/07/2025, 16:45	NF/WC	NF/WC
04/07/2025	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

Water Reactive Cyanide Preparation Sheet

PB167505

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167505BL	PBW505	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1739-02DUP	WC-LIQUID-20250404DUP	50	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1739-02	WC-LIQUID-20250404	50	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN W-04072025 **WorkList ID :** 188795 **Department :** Distillation **Date :** 04-07-2025 14:18:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1739-02	WC-LIQUID-20250404	Water	Reactive Cyanide	Cool 4 deg C	PARS02	L31	04/04/2025	9012B

Date/Time 04.07.2025, 14:25
Raw Sample Received by: NF(WC)
Raw Sample Relinquished by: [illegible] (WC)

Date/Time 04.07.2025, 16:00
Raw Sample Received by: [illegible] (WC)
Raw Sample Relinquished by: NF(WC)

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Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135330

Review By	jignesh	Review On	4/7/2025 4:15:06 PM
Supervise By	Iwona	Supervise On	4/7/2025 4:24:48 PM
SubDirectory	LB135330	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	W3178,W3093,W3191,W3071,W3161,W3072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	04/07/25 16:25		jignesh	OK
2	CAL2	CAL2	CAL	04/07/25 16:26		jignesh	OK
3	CAL3	CAL3	CAL	04/07/25 16:30		jignesh	OK
4	ICV	ICV	ICV	04/07/25 16:33		jignesh	OK
5	CCV1	CCV1	CCV	04/07/25 16:35		jignesh	OK
6	Q1735-02	0401-A	SAM	04/07/25 16:38		jignesh	OK
7	Q1735-02DUP	0401-ADUP	DUP	04/07/25 16:39		jignesh	OK
8	Q1735-03	0401-B	SAM	04/07/25 16:40		jignesh	OK
9	Q1739-01	WC-LIQUID-2025040	SAM	04/07/25 16:55	Sample Cancel from login	jignesh	Not Ok
10	Q1739-02	WC-LIQUID-2025040	SAM	04/07/25 16:56		jignesh	OK
11	CCV2	CCV2	CCV	04/07/25 17:00		jignesh	OK

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Instrument ID: IGN-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135340

Review By	rubina	Review On	4/8/2025 1:57:33 PM
Supervise By	Iwona	Supervise On	4/8/2025 2:32:59 PM
SubDirectory	LB135340	Test	Flash Point

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	W3193

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	ICV	ICV	ICV	04/08/25 08:45		rubina	OK
2	Q1735-04	0401-A-0401-B-COMP	SAM	04/08/25 09:15		rubina	OK
3	Q1735-04DUP	0401-A-0401-B-COMP	DUP	04/08/25 09:45		rubina	OK
4	Q1739-02	WC-LIQUID-2025040	SAM	04/08/25 10:15		rubina	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB135341

Review By	Niha	Review On	4/8/2025 4:17:46 PM
Supervise By	Iwona	Supervise On	4/8/2025 4:36:03 PM
SubDirectory	LB135341	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP112629,WP112630,WP112631,WP112632,WP112633,WP112634,WP112635
ICV Standard	WP112636
CCV Standard	WP112630
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP111035,WP110103,WP112637

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	04/08/25 10:23		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	04/08/25 10:23		Niha	OK
3	10PPBCN	10PPBCN	CAL3	04/08/25 10:23		Niha	OK
4	50PPBCN	50PPBCN	CAL4	04/08/25 10:23		Niha	OK
5	100PPBCN	100PPBCN	CAL5	04/08/25 10:23		Niha	OK
6	250PPBCN	250PPBCN	CAL6	04/08/25 10:23		Niha	OK
7	500PPBCN	500PPBCN	CAL7	04/08/25 10:23		Niha	OK
8	ICV1	ICV1	ICV	04/08/25 10:58		Niha	OK
9	ICB1	ICB1	ICB	04/08/25 10:58		Niha	OK
10	CCV1	CCV1	CCV	04/08/25 10:58		Niha	OK
11	CCB1	CCB1	CCB	04/08/25 10:58		Niha	OK
12	PB167498BL	PB167498BL	MB	04/08/25 10:58		Niha	OK
13	Q1732-04	TT-8	SAM	04/08/25 10:58		Niha	OK
14	Q1732-04DUP	TT-8DUP	DUP	04/08/25 11:05		Niha	OK
15	Q1737-02	RT3069	SAM	04/08/25 11:05		Niha	OK
16	Q1740-04	TP-20	SAM	04/08/25 11:05		Niha	OK
17	Q1743-04	TP-16	SAM	04/08/25 11:05		Niha	OK
18	Q1744-02	B-158-SB01	SAM	04/08/25 11:06		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB135341

Review By	Niha	Review On	4/8/2025 4:17:46 PM
Supervise By	Iwona	Supervise On	4/8/2025 4:36:03 PM
SubDirectory	LB135341	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP112629,WP112630,WP112631,WP112632,WP112633,WP112634,WP112635
ICV Standard	WP112636
CCV Standard	WP112630
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP111035,WP110103,WP112637

19	Q1744-04	B-158-SB02	SAM	04/08/25 11:13		Niha	OK
20	Q1745-04	IB-6A-WC	SAM	04/08/25 11:13		Niha	OK
21	Q1745-12	IB-6.5-WC	SAM	04/08/25 11:13		Niha	OK
22	CCV2	CCV2	CCV	04/08/25 11:13		Niha	OK
23	CCB2	CCB2	CCB	04/08/25 11:20		Niha	OK
24	Q1746-02	B-149-SB01	SAM	04/08/25 11:21		Niha	OK
25	Q1746-04	B-149-SB02	SAM	04/08/25 11:21		Niha	OK
26	PB167505BL	PB167505BL	MB	04/08/25 11:21		Niha	OK
27	Q1739-02	WC-LIQUID-2025040	SAM	04/08/25 11:28		Niha	OK
28	Q1739-02DUP	WC-LIQUID-2025040	DUP	04/08/25 11:28		Niha	OK
29	CCV3	CCV3	CCV	04/08/25 11:28		Niha	OK
30	CCB3	CCB3	CCB	04/08/25 11:28		Niha	OK

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Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB135347

Review By	rubina	Review On	4/8/2025 3:51:43 PM
Supervise By	Iwona	Supervise On	4/8/2025 4:15:53 PM
SubDirectory	LB135347	Test	Reactive Sulfide

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	W3105,W3114,W3149

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB167495BL	PB167495BL	MB	04/08/25 15:35		rubina	OK
2	Q1739-02	WC-LIQUID-2025040	SAM	04/08/25 15:38		rubina	OK
3	Q1739-02DUP	WC-LIQUID-2025040	DUP	04/08/25 15:41		rubina	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1739

Test : Flash Point,pH,Reactive Cyanide,Reactive Sulfide

Prepbatch ID : PB167495,PB167505,

Sequence ID/Qc Batch ID: LB135330,LB135340,LB135341,LB135347,

Standard ID :
WP110103,WP111004,WP111035,WP111294,WP111296,WP112628,WP112629,WP112630,WP112631,WP112632,WP112633,WP112634,WP112635,WP112636,WP112637,

Chemical ID :
M6121,W2668,W2725,W2882,W2926,W3019,W3071,W3072,W3093,W3105,W3112,W3113,W3114,W3138,W3139,W3149,W3154,W3161,W3178,W3191,W3193,

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 10/08/2024

FROM 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
160	0.5M ZINC ACETATE	WP111004	12/09/2024	05/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/09/2024

FROM 0.88900L of W3112 + 1.00000ml of M6121 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
607	PYRIDINE-BARBITURIC ACID	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	Glass Pipette-A	Iwona Zarych 12/10/2024

FROM 145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
11	Sodium hydroxide absorbing solution 0.25 N	WP111294	01/07/2025	07/07/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/07/2025

FROM 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3371	Cyanide LCS Spike Solution, 5PPM	WP111296	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/07/2025

FROM 1.00000ml of W3138 + 199.00000ml of WP111294 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3456	Cyanide Intermediate Working Std, 5PPM	WP112628	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 0.25000ml of W3154 + 49.75000ml of WP111294 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4	Calibation standard 500 ppb	WP112629	04/08/2025	04/09/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 04/09/2025

FROM 45.00000ml of WP111294 + 5.00000ml of WP112628 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3761	Calibration-CCV CN Standard 250 ppb	WP112630	04/08/2025	04/09/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 04/09/2025

FROM 2.50000ml of WP112628 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
6	Calibration Standard 100 ppb	WP112631	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 1.00000ml of WP112628 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
7	Calibration Standard 50 ppb	WP112632	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 0.50000ml of WP112628 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
8	Calibration Standard 10 ppb	WP112633	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 1.00000ml of WP112629 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
9	Calibration Standard 5 ppb	WP112634	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 0.50000ml of WP112629 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
167	0 ppb CN calibration std	WP112635	04/08/2025	04/09/2025	Niha Farheen Shaik	None	None	Iwona Zarych 04/09/2025

FROM 100.00000ml of WP111294 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2168	RCN ICV STD, 100 PPB	WP112636	04/08/2025	04/09/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/09/2025

FROM 1.00000ml of WP111296 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1582	Chloramine T solution, 0.014M	WP112637	04/08/2025	04/09/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 04/09/2025

FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYS, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML	60045	06/22/2025	08/19/2024 / Iwona	06/22/2020 / apatel	W2725

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 / Iwona	11/30/2021 / apatel	W2882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J4296-1 / ZINC ACETATE,DIHYD,CRYS,ACS,500G	383058	07/05/2027	07/05/2022 / ketankumar	07/05/2022 / ketankumar	W2926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	270970-1L / Pyridine 1L	SHBQ2113	04/03/2028	04/03/2023 / Iwona	04/03/2023 / Iwona	W3019

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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.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LITRE	4403S13	09/30/2025	04/22/2024 / Iwona	04/22/2024 / Iwona	W3105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	23B1556310	12/31/2025	07/08/2024 / Iwona	07/08/2024 / Iwona	W3113

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL35830-4 / IODINE SOLUTION .025N 1L	2405D89	05/31/2025	07/10/2024 / Iwona	07/10/2024 / Iwona	W3114

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / Iwona	08/28/2024 / Iwona	W3138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JTE494-6 / CHLORAMINE-T BAKER 250GM	10239484	09/09/2029	09/09/2024 / Iwona	09/09/2024 / Iwona	W3139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / Iwona	10/16/2024 / Iwona	W3149

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1411J58	05/31/2025	12/02/2024 / Iwona	12/02/2024 / Iwona	W3154

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

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CHEMICAL RECEIPT LOG BOOK

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	2411A93	10/30/2026	04/01/2025 / JIGNESH	01/27/2025 / jignesh	W3178

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	2410F80	03/31/2026	04/01/2025 / JIGNESH	03/13/2025 / jignesh	W3191

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	TCX0014-500ML / p-xylene	C6PEN	03/19/2029	03/21/2025 / rubina	03/19/2025 / lwona	W3193

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W3071
Rec 12/6/23

Certificate of Analysis

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	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
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
Yellow Dye	Proprietary	
Sodium Hydroxide	1310-73-2	Reagent

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	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 (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 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
1551-5	20 L Cubitainer®	24 months

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

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

Sigma-Aldrich.

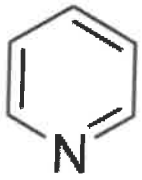
W3019
Rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Pyridine - anhydrous, 99.8%

Product Number:	**270970**
Batch Number:	**SHBQ2113**
Brand:	SIAL
CAS Number:	110-86-1
MDL Number:	MFCD00011732
Formula:	C5H5N
Formula Weight:	79.10 g/mol
Quality Release Date:	15 DEC 2022



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 99.75 %	99.99 %
Water (by Karl Fischer)	≤ 0.003 %	0.002 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %

Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

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W3072
rec. 12/01/23
12

Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21 **Product Number:** 1615

Manufacture Date: OCT 24, 2023
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
pH	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
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result	
Appearance	Colorless liquid	Passed	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.005	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 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)
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)

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

Certificate of Analysis

Date of Release:	2/26/2020
Name:	Formaldehyde Solution GR ACS Meets ACS Specifications
Item No:	FX0410 all size codes
Lot / Batch No:	60045
Country of Origin:	USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Assay	36.5	38.0	36.71	%
Chloride (Cl)		5	<5	ppm
Color (APHA)		10	<10	
Form			Passes test	
Heavy metals (as Pb)		5	<5	ppm
Iron (Fe)		5	0.6	ppm
Residue after ignition		0.005	<0.0050	%
Sulfate (SO4)		0.002	<0.0020	%
Titrable acid		0.006	<0.0060	meq/g

Heather Sinn,
_____
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	<= 10	5
ACS – Residue after Ignition	<= 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	<= 0.005 %	< 0.005
ACS – Extractable Organic Substances	<= 5 ppm	1
ACS – Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities – Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities – Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	<= 1.0 ppb	< 0.2

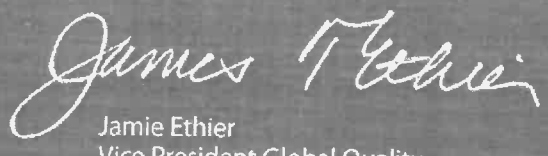
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
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Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

	Spec. Values		Batch Values	
Assay (acidimetric)	≥ 99	%	99.6	%
Identity (IR-spectrum)	passes test		passes test	
Chloride (Cl)	≤ 40	ppm	≤ 40	ppm
Heavy metals (as Pb)	≤ 50	ppm	≤ 50	ppm
Fe (Iron)	≤ 10	ppm	≤ 10	ppm
Sulfated ash	≤ 0.1	%	≤ 0.1	%
Loss on Drying (105 °C)	≤ 0.1	%	≤ 0.1	%
Suitability as reagent (for cyanide determination)	passes test		passes test	

Date of release (DD.MM.YYYY) 17.04.2020
Minimum shelf life (DD.MM.YYYY) 30.04.2025

Ioannis Chartomatsidis
Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.

Sodium Phosphate, Monobasic, Monohydrate, Crystal
BAKER ANALYZED® A.C.S. Reagent

(sodium dihydrogen phosphate, monohydrate)

Material No.: 3818-05
Batch No.: 0000225799
Manufactured Date: 2018/12/05
Retest Date: 2025/12/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NaH_2PO_4 \cdot H_2O$)	98.0 - 102.0 %	99.5
pH of 5% Solution at 25°C	4.1 - 4.5	4.3
Insoluble Matter	<= 0.01 %	< 0.01
Chloride (Cl)	<= 5 ppm	< 5
ACS - Sulfate (SO_4)	<= 0.003 %	< 0.003
Calcium (Ca)	<= 0.005 %	<0.005
Potassium (K)	<= 0.01 %	< 0.01
Heavy Metals (as Pb)	<= 0.001 %	< 0.001
Trace Impurities - Iron (Fe)	<= 0.001 %	< 0.001

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: IN
Packaging Site: Paris Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality

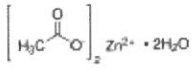
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

W2926
open 7/5/22
received
on
7/5/22

Certificate of Analysis

Product Name:
Zinc acetate dihydrate - ACS reagent, ≥98%



Product Number:	**383058**
Batch Number:	**MKCQ9159**
Brand:	SIGALD
CAS Number:	5970-45-6
MDL Number:	MFCD00066961
Formula:	C4H6O4Zn · 2H2O
Formula Weight:	219.51 g/mol
Quality Release Date:	06 JAN 2022

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystal or Chunk(s)	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Insoluble Matter	≤ 0.005 %	0.003 %
Calcium (Ca)	≤ 0.005 %	0.003 %
Chloride (Cl)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 5 ppm	< 5 ppm
Potassium (K)	≤ 0.01 %	0.00 %
Magnesium (Mg)	≤ 0.005 %	0.003 %
Sodium (Na)	≤ 0.05 %	0.03 %
Lead (Pb)	≤ 0.002 %	< 0.001 %
pH	6.0 - 7.0	6.1
Sulfate (SO4)	≤ 0.005 %	< 0.005 %
Complexometric EDTA	98.0 - 101.0 %	100.3 %
Meets ACS Requirements	Meets Requirements	Meets Requirements

Larry Coers, Director
Quality Control
Milwaukee, WI US

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W3093 09412.. 04/03/2024 LG

Certificate of Analysis

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

Lot Number: 4401F99 **Product Number:** 1551

Manufacture Date: JAN 08, 2024
Expiration Date: DEC 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	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
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
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)	7.004	0.02	186-I-g, 186-II-g, 191d

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 (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 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

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

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

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W3105 Received on 4/22/24 by IZ

Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 4403S13 **Product Number:** 7900

Manufacture Date: MAR 29, 2024
Expiration Date: SEP 2025

This product is specially formulated to increase its stability. A preservative is added to prevent bacterial contamination. However, all Sodium Thiosulfate solutions are subject to slow chemical deterioration and should be restandardized periodically.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Thiosulfate Pentahydrate	10102-17-7	ACS
Organic Preservative	Proprietary	
Sodium Carbonate	497-19-8	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Iodate/Starch)	0.02499-0.02501 N at 20°C	0.02501 N at 20°C	136

Specification	Reference
Standard Sodium Thiosulfate Solution, 0.0250 N	APHA (4500-S2- F)
Standard Sodium Thiosulfate Titrant	APHA (4500-O D)
Standard Sodium Thiosulfate Titrant	APHA (4500-O E)
Standard Sodium Thiosulfate Titrant	APHA (4500-O F)
Standard Sodium Thiosulfate Titrant, 0.025 N	APHA (4500-Cl B)
Standard Sodium Thiosulfate Titrant	APHA (4500-O C)
Standard Sodium Thiosulfate Titrant, 0.025 M	APHA (5530 C)
Standard Sodium Thiosulfate Solution (0.025 N)	EPA (SW-846) (9031)
Standard Sodium Thiosulfate solution (0.025 N)	EPA (SW-846) (9034)

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)
7900-1	4 L natural poly	18 months
7900-16	500 mL natural poly	18 months
7900-1CT	4 L Cubitainer®	18 months
7900-32	1 L natural poly	18 months

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

Paul Brandon (03/29/2024)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583

Grade: ACS GRADE

Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Pellets

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: **0583**

Grade: **ACS GRADE**

Batch Number: **23B1556310**

Chemical Formula:	NaOH	Manufacture Date:	12/14/2022
Molecular Weight:	40	Expiration Date:	12/31/2025
CAS #:	1310-73-2		
Appearance:		Storage:	Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

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http://www.riccachemical.com
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Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 mg S^{2-}

Lot Number: 2405D89 **Product Number:** 3975

Manufacture Date: MAY 10, 2024
Expiration Date: MAY 2025

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Iodide	7681-11-0	ACS
Iodine	7553-56-2	ACS

Test	Specification	Result	NIST SRM#
Appearance	Dark brown liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	0.02498-0.02502 N at 20°C	0.02502 N at 20°C	136

Specification	Reference
Standard Iodine Solution, 0.0250 N	APHA (4500-S2- F)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9031)
Standard Iodine Solution, 0.0250 N	EPA (376.1)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9034)

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)
3975-1	4 L amber glass	12 months
3975-16	500 mL amber glass	12 months
3975-32	1 L amber glass	12 months

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

Jose Pena (05/10/2024)
Operations Manager

LabChem
Part of TCP Analytical Group
Jackson's Pointe Commerce Park- Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063

Certificate of Analysis

Cyanide Standard 1000 ppm (1ml = 1mg CN)

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.008mg/mL
Concentration (CN)	990 - 1,010ppm	1,008ppm
Traceable to NIST SRM	Report	999b

Intended Use *- Product is intended for use in manufacturing procedures and laboratory procedures and protocols.*

Storage Information *- Unless noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.*

Instructions for Handling and Use - *Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.*

Preparation - *All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.*

The suffix of the product code may differ from what is on your product label. The suffix will designate the size and be associated with a numeric digit(s). Visit LabChem.com for more information

Suffix	1	2	3/3S/36/36S	4/4C	5	6	7	8	9	20	44	200	246	486
Size	500mL or g	1L or 1kg	2.5L/2.5L Coated/6x2.5L/6x2.5L Coated	4L	20L	10L	125mL	25g	100g	20x20mL	4x4L	200L	24x6mL	48x6mL

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

W3139 Received on 9/9/24 by IZ

Product No.:	A12044
Product:	Chloramine-T trihydrate, 98%
Lot No.:	10239484

Appearance:	White powder
Melting Point:	166°C(dec)
Assay (Iodometric titration):	100.5%
Identification (FTIR):	Conforms

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Batesville, IN 47006
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Certificate of Analysis

Starch Indicator, 0.5% (w/v), Mercury Free, for Iodometric Titrations

Lot Number: 4408P62 **Product Number:** 8000

Manufacture Date: AUG 28, 2024
Expiration Date: AUG 2026

This product is Mercury-free.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Starch, soluble	9005-84-9	ACS
Salicylic Acid	69-72-7	ACS

Test	Specification	Result
Appearance	White translucent liquid	Passed
Suitability for Use	Colorless (Iodine absent) - Blue (Iodine present)	Passed

Specification	Reference
Starch Solution	APHA (4500-S2- F)
Starch Indicator Solution	APHA (4500-Cl B)
Starch Indicator	APHA (4500-SO32- B)
Starch indicator solution	APHA (2350 B)
Starch indicator solution	APHA (2350 E)
Starch Solution	APHA (510 B)
Starch Solution	APHA (5530 C)
Starch Indicator	APHA (4500-Cl C)
Starch Indicator	EPA (345.1)

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)
8000-1	4 L natural poly	24 months
8000-16	500 mL natural poly	24 months
8000-32	1 L natural poly	24 months

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

Paul Brandon (08/28/2024)
Production Manager

RICCA CHEMICAL COMPANY®
W3154 Rec. on 12/2/24 by IZ

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Certificate of Analysis

Cyanide Standard, 1000 ppm CN^-

Lot Number: 1411J58 **Product Number:** 2543

Manufacture Date: NOV 22, 2024
Expiration Date: MAY 2025

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certifiec traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.
Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN^-)	995-1005 ppm	1000 ppm

Specification	Reference
Stock Standard Cyanide Solution	APHA (4500-CN- F)
Stock Cyanide Solution	APHA (4500-CN- E)
Stock Cyanide Solution	APHA (4500-CN- K)
Stock Cyanide Solution	APHA (4500-CN- H)
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846) (7.3.3.2)
Cyanide Calibration Stock Solution (1,000 mg/L CN-)	EPA (SW-846) (9213)
Stock Cyanide Solution	EPA (335.3)
Stock Cyanide Solution	EPA (335.2)
Cyanide Solution Stock	ASTM (D 4282)
Simple Cyanide Solution, Stock (1.0 g/L CN)	ASTM (D 4374)

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)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Luis Briceno (11/22/2024)
Operations Supervisor

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

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Certificate of Analysis

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

Lot Number: 2411E26 **Product Number:** 1493

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
pH	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)

Jose Pena (11/11/2024)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

W3178 58

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

Lot Number: 2411A93 **Product Number:** 1501 **Manufacture Date:** NOV 04, 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	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	
Appearance	Red liquid	Passed	*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	4.008	0.02	185i, 186-I-g, 186-II-g

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 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)
1501-16	500 mL natural poly	24 months
1501-2.5	10 L Cubitainer®	24 months
1501-5	20 L Cubitainer®	24 months

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

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W3191 W3191 Receive Date: 03/18/25 JP

Certificate of Analysis

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

Lot Number: 2410F80 **Product Number:** 1601 **Manufacture Date:** OCT 09, 2024
Expiration Date: MAR 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	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
Preservative	Proprietary	
Blue Dye	Proprietary	

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

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.009	0.02	186-I-g, 186-II-g, 191d

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

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)
1601-1	4 L natural poly	18 months
1601-16	500 mL natural poly	18 months
1601-1CT	4 L Cubitainer®	18 months
1601-2.5	10 L Cubitainer®	18 months
1601-32	1 L natural poly	18 months
1601-5	20 L Cubitainer®	18 months

Certificate of Analysis

03/19/2025(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.
T-PLUS Nihonbashi-Kodemmacho
16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

Chemical Name: ***p*-Xylene**		
Product Number: X0014 CAS RN: 106-42-3	Lot: C6PEN	

Tests	Results	Specifications
Appearance	Colorless clear liquid	Colorless to Almost colorless clear liquid
Purity(GC)	99.7 %	min. 99.0 %

TCI Lot numbers are 4-5 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.
The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

Customer Service:

TCI AMERICA
Tel: +1-800-423-8616 / +1-503-283-1681
Fax: +1-888-520-1075 / +1-503-283-1987
E-mail: Sales-US@TCIchemicals.com

Takuya Nishioka
Quality Assurance Department Manager

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q1739
COC Number 2045994

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Parsons
ADDRESS: 301 Plainfied Rd
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore
PHONE: 315-552-9738 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed 11th Ave
PROJECT NO.: LOCATION: 11th Ave New York, NY
PROJECT MANAGER: Stephen Liberatore
e-mail: Stephen.Liberatore@parsons.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Parsons PO#: 454053
ADDRESS: 301 Plainfied Road
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore PHONE: 315-552-9738

DATA TURNAROUND INFORMATION

FAX (RUSH) 5-day rush DAYS*
HARDCOPY (DATA PACKAGE): 5-day rush DAYS*
EDD: 5-day rus DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☒ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B
☐ Other
☐ EDD FORMAT

ANALYSIS

1 TPH-TPO
2 TCLP Pesticid/Herbicide
3 Flash Point/TCLP VOA
4 SVOC-TCL BNA-20/PCB
5 TCLP BNA/Extraction
6 pH Reactive Cyanide/Sulfide
7 VOC-TCLVOA-40
8 Mercury Metals TCP-TAL
9 TCLP ICP Metals/Mercury

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES H2SO4 1	ICE 2	ICE 3	E 4	E 5	E 6	HCl 7	HNO3 8	ICE 9	COMMENTS
1.	WC-Liquid_20250404	L	X		4/4/25	0940	16	X	X	X	X	X	X	X	X	X	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

PRESERVATIVES: ← Specify Preservatives — A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Francine Phillips	4/4/25 1400	1 1460 4-4-25
2.	DATE/TIME:	2.
3.	4-4-25 1630	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.4 °C
Comments: Include kirstenovalentini@parsons.com
Temp 2.4 C Adjustment Factor +1 IR Gun #1

Page 1 of 1
CLIENT: ☐ Hand Delivered ☐ Other
Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1739 PARS02
Client Name : PARSONS Engineering of N
Client Contact : Stephen Liberatore
Invoice Name : PARSONS Engineering of N
Invoice Contact : Stephen Liberatore

Order Date : 4/4/2025 2:08:31 PM
Project Name : Con Edison - 11th Ave-Wes
Receive DateTime : 4/4/2025 ~~12:00:00 AM~~ 04:30 PM
Purchase Order :

yg 04/11/25

Project Mgr :
Report Type : ~~Results Only~~ Level 4
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1739-01	WC-LIQUID-20250404	Water	04/04/2025	09:40					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By :
Date / Time : 4/7/25 0915

Received By :
Date / Time : 4/7/25 09:15

Storage Area : VOA Refridgerator Room