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

Cover Page

Order ID : Q1119

Project ID : Monthly 2025

Client : Aramark Uniforms

Lab Sample Number	Client Sample Number
Q1119-01	FILTER CAKE

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 : _____

Date: 1/23/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1119

	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: PRIYANKA DAVE **Date:** 01/23/2025

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LAB CHRONICLE

OrderID:	Q1119	**OrderDate:**	1/16/2025 3:44:00 PM
Client:	Aramark Uniforms	**Project:**	Monthly 2025
Contact:	Jose Liceaga	**Location:**	M11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1119-01	**FILTER CAKE**	**SOIL**			**01/16/25 13:38**			**01/16/25**
			Corrosivity	9045D			01/16/25 19:00	
			Ignitability	1030			01/23/25 10:58	
			Reactive Cyanide	9012B		01/17/25	01/17/25 13:39	
			Reactive Sulfide	9034		01/17/25	01/17/25 12:36	

Alliance
TECHNICAL GROUP

SAMPLE DATA

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Report of Analysis

Client:	Aramark Uniforms	Date Collected:	01/16/25 13:38
Project:	Monthly 2025	Date Received:	01/16/25
Client Sample ID:	FILTER CAKE	SDG No.:	Q1119
Lab Sample ID:	Q1119-01	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	5.56	H	1	0	0	pH		01/16/25 19:00	9045D
Ignitability	NO		1	0	0	oC		01/23/25 10:58	1030
Reactive Cyanide	0.0087	U	1	0.0087	0.050	mg/Kg	01/17/25 10:15	01/17/25 13:39	9012B
Reactive Sulfide	1.58	J	1	0.19	10.0	mg/Kg	01/17/25 08:15	01/17/25 12:36	9034

Comments: pH result reported at temperature 20.3 °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
* = 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

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Initial and Continuing Calibration Verification

Client: Aramark Uniforms **SDG No.:** Q1119

Project: Monthly 2025 **RunNo.:** LB134321

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV**						
Corrosivity		pH	7.01	7	100	90-110	01/16/2025
Sample ID:	**CCV1**						
Corrosivity		pH	2.01	2.00	101	90-110	01/16/2025
Sample ID:	**CCV2**						
Corrosivity		pH	12.02	12.00	100	90-110	01/16/2025

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Initial and Continuing Calibration Verification

Client:	Aramark Uniforms	**SDG No.:**	Q1119
Project:	Monthly 2025	**RunNo.:**	LB134328

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: **ICV1**						
Reactive Cyanide	mg/L	0.097	0.099	98	85-115	01/17/2025
Sample ID: **CCV1**						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/17/2025
Sample ID: **CCV2**						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/17/2025
Sample ID: **CCV3**						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	01/17/2025

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Initial and Continuing Calibration Blank Summary

Client: Aramark Uniforms **SDG No.:** Q1119

Project: Monthly 2025 **RunNo.:** LB134328

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/17/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/17/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/17/2025
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	01/17/2025

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Preparation Blank Summary

Client: Aramark Uniforms **SDG No.:** Q1119

Project: Monthly 2025

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166081BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/17/2025
Sample ID: PB166112BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	01/17/2025

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Duplicate Sample Summary

Client: Aramark Uniforms
Project: Monthly 2025
Client ID: 427DUP
SDG No.: Q1119
Sample ID: Q1092-01
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	0.00099	U	0.00099	U	1	0		01/17/2025

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Duplicate Sample Summary

Client: Aramark Uniforms
Project: Monthly 2025
Client ID: 428DUP

SDG No.: Q1119
Sample ID: Q1092-02
Percent Solids for Spike Sample: 100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		01/17/2025
Reactive Sulfide	mg/Kg	+/-20	4.76	J	4.76	J	1	0		01/17/2025

RAW DATA

Reviewed By:Iwona
On:1/17/2025 11:38:49 AM
Inst Id :WC PH METER-1

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: Corrosivity
Supervisor Review By : Iwona
Run Number: LB134321
Slope : 98.6
BalanceID: WC SC-7
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	01/16/2025	18:25
2	CAL2	1	Water	NA	NA	20.2	7.00	01/16/2025	18:26
3	CAL3	1	Water	NA	NA	20.2	10.02	01/16/2025	18:27
4	ICV	1	Water	NA	NA	20.2	7.01	01/16/2025	18:29
5	CCV1	1	Water	NA	NA	20.2	2.01	01/16/2025	18:30
6	Q1092-02	1	Solid	20.02	20	20.1	6.30	01/16/2025	18:35
7	Q1092-03	1	Solid	20.03	20	20.6	7.22	01/16/2025	18:37
8	Q1115-02	1	Solid	20.02	20	20.6	6.72	01/16/2025	18:40
9	Q1115-05	1	Solid	20.04	20	20.5	8.76	01/16/2025	18:42
10	Q1115-08	1	Solid	20.02	20	20.9	8.60	01/16/2025	18:47
11	Q1115-11	1	Solid	20.03	20	20.4	9.52	01/16/2025	18:55
12	Q1119-01	1	Solid	20.02	20	20.3	5.56	01/16/2025	19:00
13	Q1119-01DUP	1	Solid	20.03	20	20.4	5.57	01/16/2025	19:01
14	CCV2	1	Water	NA	NA	20.3	12.02	01/16/2025	19:05

WORKLIST(Hardcopy Internal Chain)

T.B UB134310 UB134321

WorkList Name : corrosivity Q1092 **WorkList ID :** 186949 **Department :** Wet-Chemistry **Date :** 01-16-2025 09:55:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1119-01	FILTER CAKE	Solid	Corrosivity	Cool 4 deg C	ARAM01	M11	01/16/2025	9045D
Q1092-02	428	Solid	Corrosivity	Cool 4 deg C	PSEG03	N41	01/15/2025	9045D
Q1092-03	429	Solid	Corrosivity	Cool 4 deg C	PSEG03	N41	01/15/2025	9045D
Q1115-02	366	Solid	Corrosivity	Cool 4 deg C	PSEG03	M11	01/16/2025	9045D
Q1115-05	VNJ-214	Solid	Corrosivity	Cool 4 deg C	PSEG03	M11	01/16/2025	9045D
Q1115-08	72-11995	Solid	Corrosivity	Cool 4 deg C	PSEG03	M11	01/16/2025	9045D
Q1115-11	VNJ-213	Solid	Corrosivity	Cool 4 deg C	PSEG03	M11	01/16/2025	9045D

Date/Time 01.16.25 18:20
Raw Sample Received by: JR WC
Raw Sample Relinquished by: CP SM

Date/Time 01.16.25 19:30
Raw Sample Received by: CP SM
Raw Sample Relinquished by: JR WC

Test results | Aquakem 7.2AQ1 | Page: 1

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1/17/2025 13:48 | Reviewed by : NF | Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	96.730	0.0	0.071	
ICB1	-0.072	0.0	0.002	
CCV1	239.585	0.0	0.172	
CCB1	0.130	0.0	0.002	
PB166111BL	-0.075	0.0	0.002	
Q1092-01	-0.014	0.0	0.002	
Q1092-01DUP	-0.489	0.0	0.002	
Q1094-03	-0.423	0.0	0.002	
Q1096-01	-0.559	0.0	0.002	
PB166112BL	-0.179	0.0	0.002	
Q1092-02	-1.269	0.0	0.001	
Q1092-02DUP	-0.284	0.0	0.002	
Q1092-03	-0.291	0.0	0.002	
CCV2	243.080	0.0	0.175	
CCB2	-0.407	0.0	0.002	
Q1115-02	-0.318	0.0	0.002	
Q1115-05	-0.309	0.0	0.002	
Q1115-08	-0.310	0.0	0.002	
Q1115-11	-0.254	0.0	0.002	
Q1119-01	-0.232	0.0	0.002	
CCV3	244.265	0.0	0.176	
CCB3	0.022	0.0	0.002	

N	22
Mean	37.197
SD	85.9332
CV%	231.02

Aquakem v. 7.2AQ1
Results from time period:
Fri Jan 17 12:52:03 2025
Fri Jan 17 13:40:03 2025

Sample Id	Sam/	Test short r	Test	Result	Result	Result date and time	Stat	Accept stat
0.0PPBCN	A	Total CN	P	-0.263	µg/l	1/17/2025 12:52:03		MA
5.0PPBCN	A	Total CN	P	4.4405	µg/l	1/17/2025 12:52:04		MA
10PPBCN	A	Total CN	P	9.2502	µg/l	1/17/2025 12:52:05		MA
50PPBCN	A	Total CN	P	49.7107	µg/l	1/17/2025 12:52:06		MA
100PPBCN	A	Total CN	P	101.3716	µg/l	1/17/2025 12:52:07		MA
250PPBCN	A	Total CN	P	251.4298	µg/l	1/17/2025 12:52:08		MA
500PPBCN	A	Total CN	P	499.0603	µg/l	1/17/2025 12:52:09		MA
ICV1	S	Total CN	P	96.7297	µg/l	1/17/2025 13:25:15		MA
ICB1	S	Total CN	P	-0.0717	µg/l	1/17/2025 13:25:17		MA
CCV1	S	Total CN	P	239.5849	µg/l	1/17/2025 13:25:19		MA
CCB1	S	Total CN	P	0.1301	µg/l	1/17/2025 13:25:22		MA
PB166111BL	S	Total CN	P	-0.0749	µg/l	1/17/2025 13:25:23		MA
Q1092-01	S	Total CN	P	-0.014	µg/l	1/17/2025 13:25:25		MA
Q1092-01DUP	S	Total CN	P	-0.489	µg/l	1/17/2025 13:32:47		MA
Q1094-03	S	Total CN	P	-0.4225	µg/l	1/17/2025 13:32:48		MA
Q1096-01	S	Total CN	P	-0.559	µg/l	1/17/2025 13:32:49		MA
PB166112BL	S	Total CN	P	-0.1794	µg/l	1/17/2025 13:32:52		MA
Q1092-02	S	Total CN	P	-1.2689	µg/l	1/17/2025 13:32:54		MA
Q1092-02DUP	S	Total CN	P	-0.2844	µg/l	1/17/2025 13:32:55		MA
Q1092-03	S	Total CN	P	-0.2914	µg/l	1/17/2025 13:32:56		MA
CCV2	S	Total CN	P	243.0797	µg/l	1/17/2025 13:32:57		MA
CCB2	S	Total CN	P	-0.4072	µg/l	1/17/2025 13:39:54		MA
Q1115-02	S	Total CN	P	-0.3177	µg/l	1/17/2025 13:39:55		MA
Q1115-05	S	Total CN	P	-0.309	µg/l	1/17/2025 13:39:56		MA
Q1115-08	S	Total CN	P	-0.3099	µg/l	1/17/2025 13:39:57		MA
Q1115-11	S	Total CN	P	-0.2536	µg/l	1/17/2025 13:39:58		MA
Q1119-01	S	Total CN	P	-0.2325	µg/l	1/17/2025 13:39:59		MA
CCV3	S	Total CN	P	244.265	µg/l	1/17/2025 13:40:02		MA
CCB3	S	Total CN	P	0.0224	µg/l	1/17/2025 13:40:03		MA

Calibration results Aquakem 7.2AQ1

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

Reviewed by : NF Instrument ID : Konelab

1/17/2025 12:56

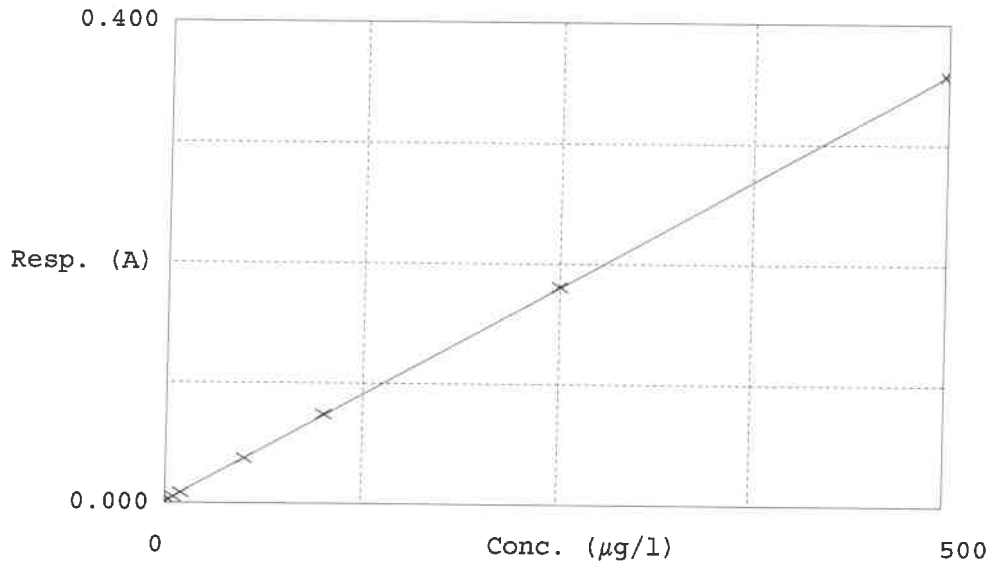
Test Total CN

Accepted 1/17/2025 12:56

Factor 1405
Bias 0.002

Coeff. of det. 0.999972

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors (Re)
1	0.0PPBCN	0.002	-0.2630	0.0000	-
2	5.0PPBCN	0.005	4.4405	5.0000	-11.2
3	10PPBCN	0.009	9.2502	10.0000	-7.5
4	50PPBCN	0.037	49.7107	50.0000	-0.6
5	100PPBCN	0.074	101.3716	100.0000	1.4
6	250PPBCN	0.181	251.4298	250.0000	0.6
7	500PPBCN	0.357	499.0603	500.0000	-0.2

NF
01.17.2025

CHEMTECH

Analytical Summary Report

Analysis Method: 9034
Parameter: Reactive Sulfide
Run Number: LB134330

ANALYST: Niha
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 Weight (g)	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	PB166081BL		1	5.00	50	2.00	0.00	1.94	1.94	0.06	0.00	0.00	01/17/2025	12:10
2	Q1092-02		1	5.04	50	2.00	0.00	1.88	1.88	0.12	0.06	4.76	01/17/2025	12:13
3	Q1092-02DUP		1	5.04	50	2.00	0.00	1.88	1.88	0.12	0.06	4.76	01/17/2025	12:16
4	Q1092-03		1	5.07	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/17/2025	12:20
5	Q1115-02		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.08	6.35	01/17/2025	12:23
6	Q1115-05		1	5.02	50	2.00	0.00	1.90	1.90	0.10	0.04	3.19	01/17/2025	12:26
7	Q1115-08		1	5.01	50	2.00	0.00	1.92	1.92	0.08	0.02	1.60	01/17/2025	12:30
8	Q1115-11		1	5.01	50	2.00	0.00	1.88	1.88	0.12	0.06	4.79	01/17/2025	12:33
9	Q1119-01		1	5.05	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/17/2025	12:36

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

Analytical Summary Report

Analysis Method: 1030 **Reviewed By:** Iwona

Parameter: Ignitability **Supervisor Review By:** jignesh

Run Number: LB134381

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q1119-01	FILTER CAKE	1	Solid	NO	0.00	01/23/2025	10:58
2	Q1119-01DUP	FILTER CAKEDUP	1	Solid	NO	0.00	01/23/2025	11:05

$$\text{Burning Rate} = \frac{\text{Length(mm)}}{\text{Total Time(sec)}}$$

WORKLIST(Hardcopy Internal Chain)

LB134381

WorkList Name : IGN-012325 **WorkList ID :** 187087 **Department :** Wet-Chemistry **Date :** 01-23-2025 09:22:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1119-01	FILTER CAKE	Solid	Ignitability	Cool 4 deg C	ARAM01	M11	01/16/2025	1030

Date/Time 01/23/25 10:45
Raw Sample Received by: 12(oC)
Raw Sample Relinquished by: [signature]

Date/Time 01/23/25 11:20
Raw Sample Received by: [signature]
Raw Sample Relinquished by: 12(oC)

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB166081

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : SOIL

Pippete ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : JP

Start Digest Date: 01/17/2025 **Time :** 08:15 **Temp :** N/A

End Digest Date: 01/17/2025 **Time :** 09:45 **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: JP

Supervisor Signature: 12

Standared Name	MLS USED	STD REF. # FROM LOG
PBS003	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:

N/A

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

01/17/25 JP

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB166081

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166081BL	PBS081	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-02DUP	428DUP	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-02	428	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-03	429	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-02	366	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-05	VNJ-214	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-08	72-11995	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-11	VNJ-213	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1119-01	FILTER CAKE	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB166112

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

SDG No : N/A

Matrix : SOIL

Pippete ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1, MC-2

Weigh By : NF

Start Digest Date: 01/17/2025 **Time :** 10:15 **Temp :** N/A

End Digest Date: 01/17/2025 **Time :** 11:45 **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: NF

Supervisor Signature: JZ

Standared Name	MLS USED	STD REF. # FROM LOG
PBS003	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
01.17.2025, 11:55	NF (WC)	NF (WC)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB166112

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166112BL	PBS112	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-02DUP	428DUP	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-02	428	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1092-03	429	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-02	366	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-05	VNJ-214	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-08	72-11995	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1115-11	VNJ-213	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1119-01	FILTER CAKE	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A

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Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134321

Review By	jignesh	Review On	1/17/2025 10:54:48 AM
Supervise By	Iwona	Supervise On	1/17/2025 11:38:49 AM
SubDirectory	LB134321	Test	Corrosivity

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	01/16/25 18:25		Jignesh	OK
2	CAL2	CAL2	CAL	01/16/25 18:26		Jignesh	OK
3	CAL3	CAL3	CAL	01/16/25 18:27		Jignesh	OK
4	ICV	ICV	ICV	01/16/25 18:29		Jignesh	OK
5	CCV1	CCV1	CCV	01/16/25 18:30		Jignesh	OK
6	Q1092-02	428	SAM	01/16/25 18:35		Jignesh	OK
7	Q1092-03	429	SAM	01/16/25 18:37		Jignesh	OK
8	Q1115-02	366	SAM	01/16/25 18:40		Jignesh	OK
9	Q1115-05	VNJ-214	SAM	01/16/25 18:42		Jignesh	OK
10	Q1115-08	72-11995	SAM	01/16/25 18:47		Jignesh	OK
11	Q1115-11	VNJ-213	SAM	01/16/25 18:55		Jignesh	OK
12	Q1119-01	FILTER CAKE	SAM	01/16/25 19:00		Jignesh	OK
13	Q1119-01DUP	FILTER CAKEDUP	DUP	01/16/25 19:01		Jignesh	OK
14	CCV2	CCV2	CCV	01/16/25 19:05		Jignesh	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB134328

Review By	Niha	Review On	1/20/2025 9:24:21 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:13:43 AM
SubDirectory	LB134328	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP111474,WP111475,WP111476,WP111477,WP111478,WP111479,WP111480
ICV Standard	WP111482
CCV Standard	WP111475
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP111035,WP110103,WP111481

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	01/17/25 12:52		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	01/17/25 12:52		Niha	OK
3	10PPBCN	10PPBCN	CAL3	01/17/25 12:52		Niha	OK
4	50PPBCN	50PPBCN	CAL4	01/17/25 12:52		Niha	OK
5	100PPBCN	100PPBCN	CAL5	01/17/25 12:52		Niha	OK
6	250PPBCN	250PPBCN	CAL6	01/17/25 12:52		Niha	OK
7	500PPBCN	500PPBCN	CAL7	01/17/25 12:52		Niha	OK
8	ICV1	ICV1	ICV	01/17/25 13:25		Niha	OK
9	ICB1	ICB1	ICB	01/17/25 13:25		Niha	OK
10	CCV1	CCV1	CCV	01/17/25 13:25		Niha	OK
11	CCB1	CCB1	CCB	01/17/25 13:25		Niha	OK
12	PB166111BL	PB166111BL	MB	01/17/25 13:25		Niha	OK
13	Q1092-01	427	SAM	01/17/25 13:25		Niha	OK
14	Q1092-01DUP	427DUP	DUP	01/17/25 13:32		Niha	OK
15	Q1094-03	3181	SAM	01/17/25 13:32		Niha	OK
16	Q1096-01	D3746	SAM	01/17/25 13:32		Niha	OK
17	PB166112BL	PB166112BL	MB	01/17/25 13:32		Niha	OK
18	Q1092-02	428	SAM	01/17/25 13:32		Niha	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB134328

Review By	Niha	Review On	1/20/2025 9:24:21 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:13:43 AM
SubDirectory	LB134328	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP111474,WP111475,WP111476,WP111477,WP111478,WP111479,WP111480
ICV Standard	WP111482
CCV Standard	WP111475
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP111035,WP110103,WP111481

19	Q1092-02DUP	428DUP	DUP	01/17/25 13:32		Niha	OK
20	Q1092-03	429	SAM	01/17/25 13:32		Niha	OK
21	CCV2	CCV2	CCV	01/17/25 13:32		Niha	OK
22	CCB2	CCB2	CCB	01/17/25 13:39		Niha	OK
23	Q1115-02	366	SAM	01/17/25 13:39		Niha	OK
24	Q1115-05	VNJ-214	SAM	01/17/25 13:39		Niha	OK
25	Q1115-08	72-11995	SAM	01/17/25 13:39		Niha	OK
26	Q1115-11	VNJ-213	SAM	01/17/25 13:39		Niha	OK
27	Q1119-01	FILTER CAKE	SAM	01/17/25 13:39		Niha	OK
28	CCV3	CCV3	CCV	01/17/25 13:40		Niha	OK
29	CCB3	CCB3	CCB	01/17/25 13:40		Niha	OK

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Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB134330

Review By	Niha	Review On	1/17/2025 2:33:57 PM
Supervise By	Iwona	Supervise On	1/17/2025 2:34:45 PM
SubDirectory	LB134330	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	PB166081BL	PB166081BL	MB	01/17/25 12:10		Iwona	OK
2	Q1092-02	428	SAM	01/17/25 12:13		Iwona	OK
3	Q1092-02DUP	428DUP	DUP	01/17/25 12:16		Iwona	OK
4	Q1092-03	429	SAM	01/17/25 12:20		Iwona	OK
5	Q1115-02	366	SAM	01/17/25 12:23		Iwona	OK
6	Q1115-05	VNJ-214	SAM	01/17/25 12:26		Iwona	OK
7	Q1115-08	72-11995	SAM	01/17/25 12:30		Iwona	OK
8	Q1115-11	VNJ-213	SAM	01/17/25 12:33		Iwona	OK
9	Q1119-01	FILTER CAKE	SAM	01/17/25 12:36		Iwona	OK

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Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QCBatch ID # LB134381

Review By	lwona	Review On	1/23/2025 1:27:45 PM
Supervise By	jignesh	Supervise On	1/23/2025 1:39:14 PM
SubDirectory	LB134381	Test	Ignitability

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	N/A

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q1119-01	FILTER CAKE	SAM	01/23/25 10:58		lwona	OK
2	Q1119-01DUP	FILTER CAKEDUP	DUP	01/23/25 11:05		lwona	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1119

Test : Corrosivity,Ignitability,Percent Solids,Reactive Cyanide,Reactive Sulfide

Prepbatch ID : PB166081,PB166112,

Sequence ID/Qc Batch ID: LB134321,LB134328,LB134330,LB134381,

Standard ID :
WP110103,WP111004,WP111035,WP111294,WP111296,WP111473,WP111474,WP111475,WP111476,WP111477,WP111478,WP111479,WP111480,WP111481,WP111482,

Chemical ID :
M6121,W2668,W2725,W2882,W2926,W3019,W3071,W3072,W3093,W3094,W3105,W3107,W3112,W3113,W3114,W3138,W3139,W3149,W3154,W3161,

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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	WP111473	01/17/2025	01/18/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

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
167	0 ppb CN calibration std	WP111474	01/17/2025	01/18/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/20/2025

FROM 50.00000ml of WP111294 = 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	WP111475	01/17/2025	01/18/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/20/2025

FROM 2.50000ml of WP111473 + 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	WP111476	01/17/2025	01/18/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

FROM 1.00000ml of WP111473 + 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	WP111477	01/17/2025	01/18/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

FROM 0.50000ml of WP111473 + 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
4	Calibation standard 500 ppb	WP111478	01/17/2025	01/18/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

FROM 45.00000ml of WP111294 + 5.00000ml of WP111473 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
8	Calibration Standard 10 ppb	WP111479	01/17/2025	01/18/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

FROM 1.00000ml of WP111478 + 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
9	Calibration Standard 5 ppb	WP111480	01/17/2025	01/18/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/20/2025

FROM 0.50000ml of WP111478 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1582	Chloramine T solution, 0.014M	WP111481	01/17/2025	01/18/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/20/2025

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2168	RCN ICV STD, 100 PPB	WP111482	01/17/2025	01/18/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

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

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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 /	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.	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.	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 #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107

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

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

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

CHEMICAL RECEIPT LOG BOOK

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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W3071
Rec 12/6/23

Certificate of Analysis 12

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.

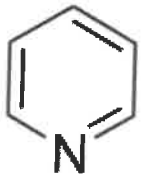
W3019
Rec 4/3/23

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

W2723, W2724, W2725, W2726 Received on 6/22/20 by AP

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
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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

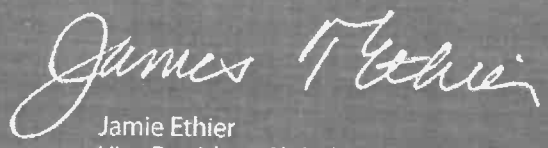
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

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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

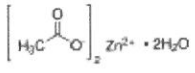
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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 0941 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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W3094 78 opuc: 04/03/2025

Certificate of Analysis

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

Lot Number: 4310G83 **Product Number:** 1601

Manufacture Date: OCT 09, 2023
Expiration Date: MAR 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	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)	10.003	0.02	186-I-g, 186-II-g, 191d

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

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (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)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months

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

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®

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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."

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W3107
38

Certificate of Analysis

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

Lot Number: 4403F90 **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.

°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)	4.000	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 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)
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)

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

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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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

2024080113:32:16bsturges-0-0

ThermoFisher SCIENTIFIC

Certificate of Analysis

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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W3149 Received on 10/16/24 by IZ

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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

448 West Fork Dr
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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

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/17/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 18:30
In Date: 01/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 01/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134310

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1103-01	VNJ-241	1	1.17	8.58	9.75	9.11	92.5	
Q1103-02	VNJ-241-VOC	2	1.14	8.40	9.54	9.05	94.2	
Q1104-01	JEI331R-TOP	3	1.00	1.00	2.00	2.00	100.0	pilc
Q1104-02	JEI331R-BOTTOM	4	1.00	1.00	2.00	2.00	100.0	pilc
Q1104-03	FDA528G-TOP	5	1.00	1.00	2.00	2.00	100.0	pilc
Q1104-04	FDA528G-BOTTOM	6	1.00	1.00	2.00	2.00	100.0	pilc
Q1104-05	BC-258881-LOZ-TOP	7	1.00	1.00	2.00	2.00	100.0	pilc
Q1104-06	BC-258881-LOZ-BOTTOM	8	1.00	1.00	2.00	2.00	100.0	pilc
Q1110-01	BIN-1	9	1.18	8.48	9.66	9.02	92.5	
Q1110-02	BIN-1-VOC	10	1.13	8.70	9.83	9.36	94.6	
Q1114-01	KMA788P-1-1	11	1.00	1.00	2.00	2.00	100.0	pilc
Q1114-02	KMA788P-1-2	12	1.00	1.00	2.00	2.00	100.0	pilc
Q1115-01	366	13	1.15	8.84	9.99	7.56	72.5	
Q1115-02	366	14	1.15	8.84	9.99	7.56	72.5	
Q1115-03	366-VOC	15	1.15	8.50	9.65	7.3	72.4	
Q1115-04	VNJ-214	16	1.15	8.83	9.98	7.97	77.2	
Q1115-05	VNJ-214	17	1.15	8.83	9.98	7.97	77.2	
Q1115-06	VNJ-214-VOC	18	1.15	8.83	9.98	8.61	84.5	
Q1115-07	72-11995	19	1.14	8.81	9.95	7.53	72.5	
Q1115-08	72-11995	20	1.14	8.81	9.95	7.53	72.5	
Q1115-09	72-11995-VOC	21	1.17	8.60	9.77	6.52	62.2	
Q1115-10	VNJ-213	22	1.15	8.60	9.75	8.24	82.4	
Q1115-11	VNJ-213	23	1.15	8.60	9.75	8.24	82.4	
Q1115-12	VNJ-213-VOC	24	1.11	8.78	9.89	8.44	83.5	
Q1116-01	366	25	1.00	1.00	2.00	2.00	100.0	Asbesto
Q1116-02	VNJ-214	26	1.00	1.00	2.00	2.00	100.0	Asbesto
Q1116-03	72-11995	27	1.00	1.00	2.00	2.00	100.0	Asbesto
Q1116-04	VNJ-213	28	1.00	1.00	2.00	2.00	100.0	Asbesto

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/17/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 18:30
In Date: 01/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 01/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134310

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1118-01	OK-01-1-16-2025	29	1.15	8.48	9.63	9.13	94.1	
Q1118-02	OK-01-1-16-2025	30	1.19	8.62	9.81	9.37	94.9	
Q1119-01	FILTER CAKE	31	1.14	8.85	9.99	6.18	56.9	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

WB 134310

WorkList Name : %1-011625 **WorkList ID :** 186953 **Department :** Wet-Chemistry **Date :** 01-16-2025 12:09:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1119-01	FILTER CAKE	Solid	Percent Solids	Cool 4 deg C	ARAM01	M11	01/16/2025	Chemtech -SO
Q1103-01	VNJ-241	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1103-02	VNJ-241-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-01	JEI331R-TOP	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-02	JEI331R-BOTTOM	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-03	FDA528G-TOP	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-04	FDA528G-BOTTOM	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1116-01	366	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1116-02	VNJ-214	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1116-03	72-11995	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1116-04	VNJ-213	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-07	72-11995	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-08	72-11995	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-09	72-11995-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-10	VNJ-213	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-11	VNJ-213	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-12	VNJ-213-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-01	366	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-02	366	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-03	366-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-04	VNJ-214	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO

Date/Time 01-16-25 17:40

Raw Sample Received by: JP (WC)

Raw Sample Relinquished by: CR SM

Date/Time 01-16-25 18:35

Raw Sample Received by: CR SM

Raw Sample Relinquished by: JP (WC)

WORKLIST(Hardcopy Internal Chain)

VB

WorkList Name : %1-011625 **WorkList ID :** 186953 **Department :** Wet-Chemistry **Date :** 01-16-2025 12:09:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1115-05	VNJ-214	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1115-06	VNJ-214-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-05	BC-258881-LOZ-TOP	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1104-06	BC-258881-LOZ-BOTTOM	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1110-01	BIN-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1110-02	BIN-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1114-01	KMA788P-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1114-02	KMA788P-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	M11	01/16/2025	Chemtech -SO
Q1118-01	OK-01-1-16-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	M11	01/16/2025	Chemtech -SO
Q1118-02	OK-01-1-16-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	M11	01/16/2025	Chemtech -SO

Date/Time 01-16-25 17:40
Raw Sample Received by: JB (wc)
Raw Sample Relinquished by: CP SM

Date/Time 01-16-25 18:35
Raw Sample Received by: CP SM
Raw Sample Relinquished by: JB (wc)

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO. Q1119
QUOTE NO.
COC Number 2041666

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Aramark Uniforms
ADDRESS: 740 Frelinghuysen Ave
CITY Newark STATE: NJ ZIP: 07114
ATTENTION: Jarrod Mills
PHONE: 973-824-1101 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: monthly
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): STandard DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

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

ANALYSIS

Full Waste Class TCLP

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	[redacted] Filter cake	S		✓	1-16-25	1338	5	E	✓								
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← 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:	DATE/TIME:
1. Jane Flanagan	1340 1-16-25	1.	1340 1-16-25
2.		2.	
3.	1810 1-16-25	3.	

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.0 °C
Comments:

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO

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

TCLP TESTING REQUIREMENTS

VOLATILES	
BENZENE	
CARBON TETRACHLORIDE	
CHLOROFORM	
1,2-DICHLOROETHANE	
1,1-DICHLOROETHYLENE	
METHYL ETHYL KETONE	
TETRACHLOROETHYLENE	
TRICHLOROETHYLENE	
VINYL CHLORIDE	
SEMI-VOLATILES	
O-CRESOL 2 methylphenol	
M-CRESOL 3+4 methylphenol.	
P-CRESOL 3+4 Methylphenol	
CRESOL	
PENTACHLOROPHENOL	
2,4,5-TRICHLOROPHENOL	
2,4,6-TRICHLOROPHENOL	
1,4-DICHLOROBENZENE	
2,4-DINITROTOLUENE	
HEXACHLOROBENZENE	
HEXACHLOROETHANE	
NITROBENZENE	
PYRIDINE	
METALS	
ARSENIC	
BARIUM	
CADMIUM	
CHROMIUM	
LEAD	
MERCURY	
SELENIUM	
SILVER	

Cresol — pcresol.
O-cresol
m cresol

**** Lab must also test/report the following:**
Corrosivity
Reactivity
Flashpoint

CHEMTECH 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