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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LAB CHRONICLE

OrderID:	Q3740	**OrderDate:**	11/26/2025 4:30:00 PM
Client:	G Environmental	**Project:**	Dimond
Contact:	Gary Landis	**Location:**	--Select--,A11,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3740-01	**WC1**	**SOIL**			**11/26/25 13:15**			**11/26/25**
			Corrosivity	9045D			12/01/25 08:47	
			Hexavalent Chromium	7196A		12/01/25	12/01/25 13:13	
			Ignitability	1030			12/03/25 15:00	
			pH	9045D			12/01/25 08:47	
			Reactive Cyanide	9012B		12/02/25	12/03/25 11:32	
			Reactive Sulfide	9034		12/01/25	12/01/25 11:33	
Q3740-01DL	**WC1DL**	**SOIL**			**11/26/25 13:15**			**11/26/25**
			Hexavalent Chromium	7196A		12/01/25	12/01/25 13:15	

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SAMPLE DATA

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Report of Analysis

Client:	G Environmental	Date Collected:	11/26/25 13:15
Project:	Dimond	Date Received:	11/26/25
Client Sample ID:	WC1	SDG No.:	Q3740
Lab Sample ID:	Q3740-01	Matrix:	SOIL
		% Solid:	90

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	6.06	H	1	0	0	pH		12/01/25 08:47	9045D
Hexavalent Chromium	209	OR	1	0.076	0.44	mg/Kg	12/01/25 09:00	12/01/25 13:13	7196A
Ignitability	NO		1	0	0	oC		12/03/25 15:00	1030
pH	6.06	H	1	0	0	pH		12/01/25 08:47	9045D
Reactive Cyanide	0.016	J	1	0.0083	0.050	mg/Kg	12/02/25 15:30	12/03/25 11:32	9012B
Reactive Sulfide	1.57	J	1	0.20	10.0	mg/Kg	12/01/25 09:10	12/01/25 11:33	9034

Comments: pH result reported at temperature 23.2 °C, pH result reported at temperature 23.2 °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

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Report of Analysis

Client:	G Environmental	Date Collected:	11/26/25 13:15
Project:	Dimond	Date Received:	11/26/25
Client Sample ID:	WC1DL	SDG No.:	Q3740
Lab Sample ID:	Q3740-01DL	Matrix:	SOIL
		% Solid:	90

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Hexavalent Chromium	4400	D	200	15.3	87.1	mg/Kg	12/01/25 09:00	12/01/25 13:15	7196A

Comments:

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: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138062

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: **ICV**						
pH	pH	7.00	7	100	90-110	12/01/2025
Sample ID: **CCV1**						
pH	pH	2.01	2.00	101	90-110	12/01/2025
Sample ID: **CCV2**						
pH	pH	12.02	12.00	100	90-110	12/01/2025

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Initial and Continuing Calibration Verification

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138063

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV**						
Corrosivity		pH	7.00	7	100	90-110	12/01/2025
Sample ID:	**CCV1**						
Corrosivity		pH	2.01	2.00	101	90-110	12/01/2025
Sample ID:	**CCV2**						
Corrosivity		pH	12.02	12.00	100	90-110	12/01/2025

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Initial and Continuing Calibration Verification

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138067

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Hexavalent Chromium	mg/L	0.472	0.5	94	90-110	12/01/2025
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.476	0.5	95	90-110	12/01/2025
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.474	0.5	95	90-110	12/01/2025
Sample ID: CCV3						
Hexavalent Chromium	mg/L	0.471	0.5	94	90-110	12/01/2025

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Initial and Continuing Calibration Verification

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138094

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.094	0.099	95	85-115	12/03/2025
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/03/2025
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	12/03/2025

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Initial and Continuing Calibration Verification

Client:	G Environmental	**SDG No.:**	Q3740
Project:	Dimond	**RunNo.:**	LB138094

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date

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Initial and Continuing Calibration Blank Summary

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138067

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	12/01/2025
Sample ID: CCB1							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	12/01/2025
Sample ID: CCB2							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	12/01/2025
Sample ID: CCB3							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	12/01/2025

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Initial and Continuing Calibration Blank Summary

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **RunNo.:** LB138094

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	0.0017	0.0025	J	0.00096	0.005	12/03/2025
Sample ID: CCB1							
Reactive Cyanide	mg/L	0.0017	0.0025	J	0.00096	0.005	12/03/2025
Sample ID: CCB2							
Reactive Cyanide	mg/L	0.0018	0.0025	J	0.00096	0.005	12/03/2025

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Initial and Continuing Calibration Blank Summary

Client:	G Environmental	**SDG No.:**	Q3740
Project:	Dimond	**RunNo.:**	LB138094

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: G Environmental **SDG No.:** Q3740

Project: Dimond

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB170756BL							
Hexavalent Chromium	mg/Kg	< 0.2000	0.2000	U	0.07	0.4	12/01/2025
Sample ID: PB170758BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.201	10	12/01/2025
Sample ID: PB170802BL							
Reactive Cyanide	mg/Kg	0.014	0.0250	J	0.0084	0.05	12/03/2025

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Matrix Spike Summary

Client: G Environmental
Project: Dimond
Client ID: SU-04-11-26-2025MS

SDG No.: Q3740
Sample ID: Q3733-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1340		0.075	U	1400	40	96		12/01/2025

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Matrix Spike Summary

Client: G Environmental
Project: Dimond
Client ID: SU-04-11-26-2025MS

SDG No.: Q3740
Sample ID: Q3733-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	39.2		0.075	U	43.7	2	90		12/01/2025

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Matrix Spike Summary

Client: G Environmental
Project: Dimond
Client ID: SU-04-11-26-2025MS

SDG No.: Q3740
Sample ID: Q3733-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	36.0		0.075	U	43.7	2	82		12/01/2025

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Duplicate Sample Summary

Client: G Environmental
Project: Dimond
Client ID: SU-04-11-26-2025DUP

SDG No.: Q3740
Sample ID: Q3733-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.075	U	0.075	U	1	0		12/01/2025

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Duplicate Sample Summary

Client: G Environmental
Project: Dimond
Client ID: WC1DUP
SDG No.: Q3740
Sample ID: Q3740-01
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
pH	pH	+/-20	6.06		6.08		1	0.33		12/01/2025
Corrosivity	pH	+/-20	6.06		6.08		1	0.33		12/01/2025
Reactive Sulfide	mg/Kg	+/-20	1.57	J	1.57	J	1	0		12/01/2025
Ignitability	oC	+/-20	NO		NO		1	0		12/03/2025
Reactive Cyanide	mg/Kg	+/-20	0.016	J	0.016	J	1	0		12/03/2025

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Laboratory Control Sample Summary

Client: G Environmental **SDG No.:** Q3740

Project: Dimond **Run No.:** LB138067

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB170756BS								
Hexavalent Chromium	mg/Kg	20	18.9		94	1	84-110	12/01/2025

RAW DATA

Reviewed By:Iwona
On:12/1/2025 2:08:29 PM
Inst Id :WC PH METER-1

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: pH
Supervisor Review By : Iwona
Run Number: LB138062
Slope : 98.6
BalanceID: WC SC-7
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	W3217
Buffer Solution, PH2 (500ml)	W3161
pH 12.00 Buffer	W3200

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

True Value of CCV1 = 2.00 Control Limits[+/- 0.05].

True Value of CCV2 = 12.00 Control Limits[+/- 0.05].

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	12/01/2025	08:10
2	CAL2	1	Water	NA	NA	20.2	7.00	12/01/2025	08:11
3	CAL3	1	Water	NA	NA	20.3	10.02	12/01/2025	08:14
4	ICV	1	Water	NA	NA	20.3	7.00	12/01/2025	08:15
5	CCV1	1	Water	NA	NA	20.2	2.01	12/01/2025	08:19
6	Q3720-01	1	Solid	20.02	20	22.6	6.78	12/01/2025	08:35
7	Q3735-01	1	Solid	20.03	20	22.9	6.80	12/01/2025	08:37
8	Q3740-01	1	Solid	20.02	20	23.2	6.06	12/01/2025	08:47
9	Q3740-01DUP	1	Solid	20.03	20	23.5	6.08	12/01/2025	08:50
10	CCV2	1	Water	NA	NA	20.3	12.02	12/01/2025	08:52

WORKLIST(Hardcopy Internal Chain)

WB 138062

WorkList Name : PH W Q3731 **WorkList ID :** 193376 **Department :** Wet-Chemistry **Date :** 12-01-2025 07:47:46

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3720-01	BUR-25-0059	Solid	pH	Cool 4 deg C	PSEG03	E42	11/25/2025	9045D
Q3735-01	BU-3-112625	Solid	pH	Cool 4 deg C	PSEG05	A11	11/26/2025	9045D
Q3740-01	WC1	Solid	pH	Cool 4 deg C	GENV01	--Sele	11/26/2025	9045D

Date/Time 12/01/25 07:55

Raw Sample Received by: IW WC1

Raw Sample Relinquished by:

Date/Time 12/01/25 12:30

Raw Sample Received by:

Raw Sample Relinquished by: IW WC1

Reviewed By:Iwona
On:12/1/2025 2:08:21 PM
Inst Id :WC PH METER-1

Analytical Summary Report

Analysis Method: 9045D
Analyst By : jignesh
Parameter: Corrosivity
Supervisor Review By : Iwona
Run Number: LB138063
Slope : 98.6
BalanceID: WC SC-7
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	W3217
Buffer Solution, PH2 (500ml)	W3161
pH 12.00 Buffer	W3200

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

True Value of CCV1 = 2.00 Control Limits[+/- 0.05].

True Value of CCV2 = 12.00 Control Limits[+/- 0.05].

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	12/01/2025	08:10
2	CAL2	1	Water	NA	NA	20.2	7.00	12/01/2025	08:11
3	CAL3	1	Water	NA	NA	20.3	10.02	12/01/2025	08:14
4	ICV	1	Water	NA	NA	20.3	7.00	12/01/2025	08:15
5	CCV1	1	Water	NA	NA	20.2	2.01	12/01/2025	08:19
6	Q3740-01	1	Solid	20.02	20	23.2	6.06	12/01/2025	08:47
7	Q3740-01DUP	1	Solid	20.03	20	23.5	6.08	12/01/2025	08:50
8	CCV2	1	Water	NA	NA	20.3	12.02	12/01/2025	08:52

WORKLIST(Hardcopy Internal Chain)

WB138063

WorkList Name : corrsovity q3740 **WorkList ID :** 193377 **Department :** Wet-Chemistry **Date :** 12-01-2025 07:48:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3740-01	WC1	Solid	Corrosivity	Cool 4 deg C	GENV01	A11	11/26/2025	9045D

Date/Time 12/01/25 07:55

Raw Sample Received by: JB WC1

Raw Sample Relinquished by:

Date/Time 12/01/25 12:30

Raw Sample Received by:

Raw Sample Relinquished by: JB WC1

Reviewed By:Iwona
On:12/1/2025 3:05:26 PM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: ~~7196A~~

Parameter: ~~Hexavalent Chromium~~

Run Number: ~~LB138067~~

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
hexavalent chromium color reagent	WP115855
5N sulfuric acid	WP115340
HNO3 Hex-Chrome, 5M	WP115339
Hexchrome Cleaning Solution	WP115854

Intercept: 0.0004 **Slope:** 0.7633 **Regression:** 0.999963

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100	7.25	1.81	0.000	0.000	0.000	-0.00		12/01/2025	13:00
2	CAL2	0.01	1	100	100	7.45	1.92	0.000	0.008	0.008	0.009	-10	12/01/2025	13:00
3	CAL3	0.025	1	100	100	7.54	1.98	0.000	0.020	0.020	0.025	0	12/01/2025	13:01
4	CAL4	0.05	1	100	100	7.50	2.00	0.000	0.039	0.039	0.050	0	12/01/2025	13:01
5	CAL5	0.1	1	100	100	7.40	1.92	0.000	0.079	0.079	0.102	2	12/01/2025	13:02
6	CAL6	0.5	1	100	100	7.41	1.97	0.000	0.377	0.377	0.493	-1.4	12/01/2025	13:02
7	CAL7	1	1	100	100	7.47	1.88	0.000	0.766	0.766	1.003	0.3	12/01/2025	13:03

Reviewed By:Iwona
On:12/1/2025 3:05:26 PM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: 7196A
ANALYST: rubina
Parameter: Hexavalent Chromium
SUPERVISOR REVIEW BY: Iwona
Run Number: LB138067
pH Meter ID: WC pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100	7.47	1.91	0.000	0.361	0.361	0.472	12/01/2025	13:03
2	ICB		1	100	100	7.42	1.88	0.000	0.000	0.000	-0.001	12/01/2025	13:04
3	CCV1	0.5	1	100	100	7.52	1.85	0.000	0.364	0.364	0.476	12/01/2025	13:04
4	CCB1		1	100	100	7.55	1.80	0.000	0.001	0.001	0.001	12/01/2025	13:05
5	RL Check	0.01	1	100	100	7.42	1.89	0.000	0.009	0.009	0.011	12/01/2025	13:05
6	PB170756BL		1	2.50	100	7.44	1.88	0.000	0.000	0.000	-0.001	12/01/2025	13:06
7	PB170756BS	20	1	2.50	100	7.40	1.93	0.000	0.361	0.361	0.472	12/01/2025	13:06
8	Q3732-01		1	2.56	100	7.50	1.90	0.004	0.004	0.000	-0.001	12/01/2025	13:07
9	Q3733-01		1	2.54	100	7.55	1.90	0.000	0.000	0.000	-0.001	12/01/2025	13:07
10	Q3733-01DU		1	2.55	100	7.57	1.94	0.000	0.000	0.000	-0.001	12/01/2025	13:08
11	Q3733-01MS	40	2	2.55	100	7.52	1.91	0.000	0.321	0.321	0.420	12/01/2025	13:08
12	Q3733-01MS	1284	40	2.56	100	7.57	1.89	0.000	0.601	0.601	0.787	12/01/2025	13:09
13	Q3733-01MS	40	2	2.54	100	7.58	1.93	0.000	0.348	0.348	0.455	12/01/2025	13:09
14	Q3739-01		1	2.55	100	7.57	2.10	0.036	3.149	3.113	4.078	12/01/2025	13:10
15	Q3739-02		1	2.58	100	7.36	2.18	0.036	3.790	3.754	4.918	12/01/2025	13:10
16	CCV2	0.5	1	100	100	7.39	2.07	0.000	0.362	0.362	0.474	12/01/2025	13:11
17	CCB2		1	100	100	7.33	2.02	0.000	0.000	0.000	-0.001	12/01/2025	13:12
18	Q3739-03		1	2.52	100	7.36	2.12	0.038	0.184	0.146	0.191	12/01/2025	13:12
19	Q3739-04		1	2.57	100	7.39	2.07	0.038	0.583	0.545	0.713	12/01/2025	13:13
20	Q3740-01		1	2.55	100	7.40	2.11	0.038	3.700	3.662	4.797	12/01/2025	13:13
21	Q3739-01		100	2.55	100	7.57	2.10	0.000	0.450	0.450	0.589	12/01/2025	13:14
22	Q3739-02		200	2.58	100	7.36	2.18	0.000	0.591	0.591	0.774	12/01/2025	13:14
23	Q3740-01		200	2.55	100	7.40	2.11	0.001	0.387	0.386	0.505	12/01/2025	13:15
24	CCV3	0.5	1	100	100	7.44	1.98	0.000	0.360	0.360	0.471	12/01/2025	13:15
25	CCB3		1	100	100	7.45	1.94	0.000	0.001	0.001	0.001	12/01/2025	13:16

CHEMTECH

Analytical Summary Report

Analysis Method: 9034
Parameter: Reactive Sulfide
Run Number: LB138071

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

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE,0.025N,4LITRE	W3248
IODINE SOLUTION .025N 1L	W3213
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	PB170758BL		1	5.00	50	2.00	0.00	1.92	1.92	0.08	0.00	0.00	12/01/2025	11:30
2	Q3740-01		1	5.08	50	2.00	0.00	1.90	1.90	0.10	0.02	1.57	12/01/2025	11:33
3	Q3740-01DUP		1	5.08	50	2.00	0.00	1.90	1.90	0.10	0.02	1.57	12/01/2025	11:36

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:** rubina

Parameter: Ignitability **Supervisor Review By:** Iwona

Run Number: LB138093

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q3740-01	WC1	1	Solid	NO	0.00	12/03/2025	15:00
2	Q3740-01DUP	WC1DUP	1	Solid	NO	0.00	12/03/2025	15:07
3	Q3750-01	FENCE WC-1	1	Solid	NO	0.00	12/03/2025	15:15
4	Q3750-04	FENCE WC-2	1	Solid	NO	0.00	12/03/2025	15:22
5	Q3750-07	FENCE WC-1	1	Solid	NO	0.00	12/03/2025	15:30
6	Q3750-08	FENCE WC-2	1	Solid	NO	0.00	12/03/2025	15:38
7	Q3753-03	MOO-25-334-337	1	Solid	NO	0.00	12/03/2025	15:46
8	Q3753-05	AR520-0002	1	Solid	NO	0.00	12/03/2025	15:54

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

WORKLIST(Hardcopy Internal Chain)

LB138093

WorkList Name : ign-12-01 **WorkList ID :** 193399 **Department :** Wet-Chemistry **Date :** 12-01-2025 12:22:12

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3740-01	WC1	Solid	Ignitability	Cool 4 deg C	GENV01	A11	11/26/2025	1030
Q3750-01	FENCE WC-1	Solid	Ignitability	Cool 4 deg C	PSEG05	A11	12/01/2025	1030
Q3750-04	FENCE WC-2	Solid	Ignitability	Cool 4 deg C	PSEG05	A11	12/01/2025	1030
Q3750-07	FENCE WC-1	Solid	Ignitability	Cool 4 deg C	PSEG05	A11	12/01/2025	1030
Q3750-08	FENCE WC-2	Solid	Ignitability	Cool 4 deg C	PSEG05	A11	12/01/2025	1030
Q3753-03	MOO-25-334-337	Solid	Ignitability	Cool 4 deg C	PSEG03	A22	12/03/2025	1030
Q3753-05	AR520-0002	Solid	Ignitability	Cool 4 deg C	PSEG03	A22	12/03/2025	1030

Date/Time 12/03/2025 13.45

Raw Sample Received by: IR14 (WC)

Raw Sample Relinquished by: [signature]

Date/Time 12/03/2025 16.20

Raw Sample Received by: [signature] WC1

Raw Sample Relinquished by: IR14 (WC)

LB138094

Test results | Aquakem 7.2AQ1 | Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM | Instrument ID : Konelab

12/3/2025 11:44

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	94.348	0.0	0.081	
ICB1	1.678	0.0	0.001	
CCV1	236.188	0.0	0.203	
CCB1	1.655	0.0	0.001	
PB170802BL	1.435	0.0	0.001	
Q3740-01	1.638	0.0	0.001	
Q3740-01DUP	1.606	0.0	0.001	
Q3750-07	1.469	0.0	0.001	
Q3750-08	1.662	0.0	0.001	
Q3753-05	1.684	0.0	0.001	
Q3753-03	1.726	0.0	0.001	
CCV2	244.276	0.0	0.210	
CCB2	1.780	0.0	0.001	

N	13
Mean	45.473
SD	90.1401
CV%	198.23

Aquakem v. 7.2AQ1
Results from time period:
Wed Dec 03 10:05:16 2025
Wed Dec 03 11:37:46 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	1.9995	µg/l	12/3/2025 10:23:35	
5.0PPBCN	A	Total CN	P	5.8553	µg/l	12/3/2025 10:23:36	
10PPBCN	A	Total CN	P	9.8597	µg/l	12/3/2025 10:23:37	
50PPBCN	A	Total CN	P	47.7728	µg/l	12/3/2025 10:23:38	
100PPBCN	A	Total CN	P	100.2727	µg/l	12/3/2025 10:23:39	
250PPBCN	A	Total CN	P	248.1551	µg/l	12/3/2025 10:23:40	
500PPBCN	A	Total CN	P	501.0849	µg/l	12/3/2025 10:23:41	
ICV1	S	Total CN	P	94.3479	µg/l	12/3/2025 11:24:53	
ICB1	S	Total CN	P	1.6775	µg/l	12/3/2025 11:24:55	
CCV1	S	Total CN	P	236.1877	µg/l	12/3/2025 11:24:58	
CCB1	S	Total CN	P	1.6547	µg/l	12/3/2025 11:24:59	
PB170802BL	S	Total CN	P	1.4349	µg/l	12/3/2025 11:25:01	
Q3740-01	S	Total CN	P	1.6377	µg/l	12/3/2025 11:32:27	
Q3740-01DUP	S	Total CN	P	1.6063	µg/l	12/3/2025 11:32:30	
Q3750-07	S	Total CN	P	1.4685	µg/l	12/3/2025 11:32:31	
Q3750-08	S	Total CN	P	1.6617	µg/l	12/3/2025 11:32:32	
Q3753-05	S	Total CN	P	1.6844	µg/l	12/3/2025 11:32:34	
Q3753-03	S	Total CN	P	1.726	µg/l	12/3/2025 11:32:36	
CCV2	S	Total CN	P	244.2758	µg/l	12/3/2025 11:37:44	
CCB2	S	Total CN	P	1.7797	µg/l	12/3/2025 11:37:45	

Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

12/3/2025 10:25

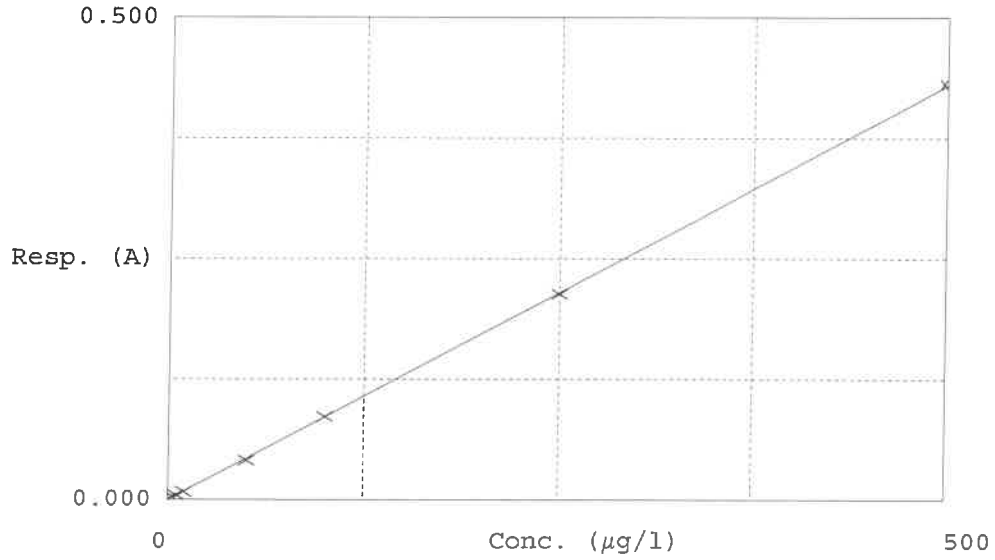
Test Total CN

Accepted 12/3/2025 10:25

Factor 1162
Bias 0

Coeff. of det. 0.999930

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.002	1.9995	0.0000	-
2	5.0PPBCN	0.005	5.8553	5.0000	17.1
3	10PPBCN	0.008	9.8597	10.0000	-1.4
4	50PPBCN	0.041	47.7728	50.0000	-4.5
5	100PPBCN	0.086	100.2727	100.0000	0.3
6	250PPBCN	0.213	248.1551	250.0000	-0.7
7	500PPBCN	0.431	501.0849	500.0000	0.2

Re

12/03/2025
RM

Alliance TECHNICAL GROUP

Soil/Sludge Hexavalent Chromium Preparation Sheet

PB170756

SOP ID : M3060A,7196A-Hex.Chromium-27

SDG No : N/A

Matrix : SOIL

Pippete ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#3

Block ID : WC S-2, WC S-1

Weigh By : RM

Start Digest Date: 12/01/2025 **Time :** 09:00 **Temp :** 90 °C

End Digest Date: 12/01/2025 **Time :** 10:00 **Temp :** 92 °C

If batch 12/01/2025 10:25 12/01/2025 11:25 90 ≥ 95 ≥ RM

Digestion tube ID : M6054

Filter paper ID : 400213

pH Meter ID : WC pH meter-1

Block Thermometer ID : WC-Block#1

Prep Technician Signature: RM

Supervisor Signature: 12

Standared Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP113880
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP113880
LCSS	1.0ML	WP113881
PBS003	50.ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3152
PHOSPHATE BUFFER	0.5ML	WP115410
HEX. DIGESTION SOLN.	50.0ML	WP115853
5M HNO3	5-7ML	WP115339
5N H2SO4	1-3ML	WP115340
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	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP115852
CAL3	CAL3	0.5ML	WP115852
CAL4	CAL4	1ML	WP115852
CAL5	CAL5	0.2ML	WP113880
CAL6	CAL6	1ML	WP113880
CAL7	CAL7	2.0ML	WP113880
ICV	ICV	1ML	WP113881
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP113880
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

12/01/2025 RM

N/A

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

Alliance TECHNICAL GROUP

Soil/Sludge Hexavalent Chromium Preparation Sheet

PB170756

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170756BL	PBS756	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB170756BS	LCS756	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3732-01	HD-01-11-26-2025	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3733-01	SU-04-11-26-2025	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3733-01DUP	SU-04-11-26-2025DUP	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3733-01MSPre	SU-04-11-26-2025MSPRE	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3733-01MS2Ins	SU-04-11-26-2025MS2INS	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3733-01MS3Post	SU-04-11-26-2025MS3POST	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3739-01	GSB1A	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3739-02	GSB1B	2.58	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3739-03	GSB2A	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3739-04	GSB2B	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3740-01	WC1	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-12-01. **WorkList ID :** 193400 **Department :** Distillation **Date :** 12-01-2025 08:09:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3732-01	HD-01-11-26-2025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	A11	11/26/2025	7196A
Q3733-01	SU-04-11-26-2025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	A11	11/26/2025	7196A
Q3739-01	GSB1A	Solid	Hexavalent Chromium	Cool 4 deg C	GENV01	A11	11/26/2025	7196A
Q3739-02	GSB1B	Solid	Hexavalent Chromium	Cool 4 deg C	GENV01	A11	11/26/2025	7196A
Q3739-03	GSB2A	Solid	Hexavalent Chromium	Cool 4 deg C	GENV01	A11	11/26/2025	7196A
Q3739-04	GSB2B	Solid	Hexavalent Chromium	Cool 4 deg C	GENV01	A11	11/26/2025	7196A
Q3740-01	WC1	Solid	Hexavalent Chromium	Cool 4 deg C	GENV01	A11	11/26/2025	7196A

Date/Time 12/01/2025 08:20
Raw Sample Received by: RM (WC)
Raw Sample Relinquished by: JS (WC)

Date/Time 12/01/2025 11:00
Raw Sample Received by: JS (WC)
Raw Sample Relinquished by: RM (WC)

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB170758

SOP ID : M9030B-Sulfide-13

SDG No : N/A

Start Digest Date: 12/01/2025 **Time :** 09:10 **Temp :** N/A

Matrix : SOIL

End Digest Date: 12/01/2025 **Time :** 10:40 **Temp :** N/A

Pippete ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : RM

pH Meter ID : N/A

Supervisor Signature: IZ

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	WP114311
FORMALDEHYDE	2.0ML	W3220
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

12/01/2025 RM

Extraction Conformance/Non-Conformance Comments:

N/A

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

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Sulfide Preparation Sheet

PB170758

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170758BL	PBS758	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3740-01DUP	WC1DUP	5.08	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3740-01	WC1	5.08	50	N/A	N/A	N/A	N/A	N/A	N/A

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB170802

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-21

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 : RM

Start Digest Date: 12/02/2025 **Time :** 15:30 **Temp :** N/A

End Digest Date: 12/02/2025 **Time :** 17:00 **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: [signature]

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	WP113836
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
12/2/2025 17:15	RM (WC)	RM (WC)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Reactive Cyanide Preparation Sheet

PB170802

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170802BL	PBS802	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3740-01DUP	WC1DUP	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3740-01	WC1	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3750-07	FENCE WC-1	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3750-08	FENCE WC-2	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3753-03	MOO-25-334-337	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3753-05	AR520-0002	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A

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

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB138062

Review By	jignesh	Review On	12/2/2025 7:41:39 AM
Supervise By	Iwona	Supervise On	12/1/2025 2:08:29 PM
SubDirectory	LB138062	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,W3217,W3161,W3200

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/01/25 08:10			OK
2	CAL2	CAL2	CAL	12/01/25 08:11			OK
3	CAL3	CAL3	CAL	12/01/25 08:14			OK
4	ICV	ICV	ICV	12/01/25 08:15			OK
5	CCV1	CCV1	CCV	12/01/25 08:19			OK
6	Q3720-01	BUR-25-0059	SAM	12/01/25 08:35			OK
7	Q3735-01	BU-3-112625	SAM	12/01/25 08:37			OK
8	Q3740-01	WC1	SAM	12/01/25 08:47			OK
9	Q3740-01DUP	WC1DUP	DUP	12/01/25 08:50			OK
10	CCV2	CCV2	CCV	12/01/25 08:52			OK

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

Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB138063

Review By	jignesh	Review On	12/2/2025 7:42:43 AM
Supervise By	Iwona	Supervise On	12/1/2025 2:08:21 PM
SubDirectory	LB138063	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	W3178,W3093,W3191,W3217,W3161,W3200

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/01/25 08:10			OK
2	CAL2	CAL2	CAL	12/01/25 08:11			OK
3	CAL3	CAL3	CAL	12/01/25 08:14			OK
4	ICV	ICV	ICV	12/01/25 08:15			OK
5	CCV1	CCV1	CCV	12/01/25 08:19			OK
6	Q3740-01	WC1	SAM	12/01/25 08:47			OK
7	Q3740-01DUP	WC1DUP	DUP	12/01/25 08:50			OK
8	CCV2	CCV2	CCV	12/01/25 08:52			OK

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

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB138067

Review By	rubina	Review On	12/1/2025 3:04:36 PM
Supervise By	Iwona	Supervise On	12/1/2025 3:05:26 PM
SubDirectory	LB138067	Test	Hexavalent Chromium

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	WP115855,WP115340,WP115339,WP115854

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/01/25 13:00			OK
2	CAL2	CAL2	CAL	12/01/25 13:00			OK
3	CAL3	CAL3	CAL	12/01/25 13:01			OK
4	CAL4	CAL4	CAL	12/01/25 13:01			OK
5	CAL5	CAL5	CAL	12/01/25 13:02			OK
6	CAL6	CAL6	CAL	12/01/25 13:02			OK
7	CAL7	CAL7	CAL	12/01/25 13:03			OK
8	ICV	ICV	ICV	12/01/25 13:03			OK
9	ICB	ICB	ICB	12/01/25 13:04			OK
10	CCV1	CCV1	CCV	12/01/25 13:04			OK
11	CCB1	CCB1	CCB	12/01/25 13:05			OK
12	RL Check	RL Check	RL	12/01/25 13:05			OK
13	PB170756BL	PB170756BL	MB	12/01/25 13:06			OK
14	PB170756BS	PB170756BS	LCS	12/01/25 13:06			OK
15	Q3732-01	HD-01-11-26-2025	SAM	12/01/25 13:07			OK
16	Q3733-01	SU-04-11-26-2025	SAM	12/01/25 13:07			OK
17	Q3733-01DUP	SU-04-11-26-2025DU	DUP	12/01/25 13:08			OK
18	Q3733-01MSPre	SU-04-11-26-2025MS	MS	12/01/25 13:08			OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB138067

Review By	rubina	Review On	12/1/2025 3:04:36 PM
Supervise By	Iwona	Supervise On	12/1/2025 3:05:26 PM
SubDirectory	LB138067	Test	Hexavalent Chromium

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	WP115855,WP115340,WP115339,WP115854

19	Q3733-01MS2Ins	SU-04-11-26-2025MS	MS	12/01/25 13:09			OK
20	Q3733-01MS3Post	SU-04-11-26-2025MS	MS	12/01/25 13:09			OK
21	Q3739-01	GSB1A	SAM	12/01/25 13:10			OK
22	Q3739-02	GSB1B	SAM	12/01/25 13:10			OK
23	CCV2	CCV2	CCV	12/01/25 13:11			OK
24	CCB2	CCB2	CCB	12/01/25 13:12			OK
25	Q3739-03	GSB2A	SAM	12/01/25 13:12			OK
26	Q3739-04	GSB2B	SAM	12/01/25 13:13			OK
27	Q3740-01	WC1	SAM	12/01/25 13:13			OK
28	Q3739-01DL	GSB1ADL	SAM	12/01/25 13:14			OK
29	Q3739-02DL	GSB1BDL	SAM	12/01/25 13:14			OK
30	Q3740-01DL	WC1DL	SAM	12/01/25 13:15			OK
31	CCV3	CCV3	CCV	12/01/25 13:15			OK
32	CCB3	CCB3	CCB	12/01/25 13:16			OK

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Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QCBatch ID # LB138071

Review By	rubina	Review On	12/1/2025 2:28:36 PM
Supervise By	Iwona	Supervise On	12/1/2025 2:30:36 PM
SubDirectory	LB138071	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	W3248,W3213,W3149

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB170758BL	PB170758BL	MB	12/01/25 11:30		rubina	OK
2	Q3740-01	WC1	SAM	12/01/25 11:33		rubina	OK
3	Q3740-01DUP	WC1DUP	DUP	12/01/25 11:36		rubina	OK

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Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QCBatch ID # LB138093

Review By	rubina	Review On	12/3/2025 4:32:25 PM
Supervise By	Iwona	Supervise On	12/3/2025 4:55:51 PM
SubDirectory	LB138093	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	Q3740-01	WC1	SAM	12/03/25 15:00		rubina	OK
2	Q3740-01DUP	WC1DUP	DUP	12/03/25 15:07		rubina	OK
3	Q3750-01	FENCE WC-1	SAM	12/03/25 15:15		rubina	OK
4	Q3750-04	FENCE WC-2	SAM	12/03/25 15:22		rubina	OK
5	Q3750-07	FENCE WC-1	SAM	12/03/25 15:30		rubina	OK
6	Q3750-08	FENCE WC-2	SAM	12/03/25 15:38		rubina	OK
7	Q3753-03	MOO-25-334-337	SAM	12/03/25 15:46		rubina	OK
8	Q3753-05	AR520-0002	SAM	12/03/25 15:54		rubina	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB138094

Review By	rubina	Review On	12/3/2025 4:52:22 PM
Supervise By	Iwona	Supervise On	12/3/2025 4:56:20 PM
SubDirectory	LB138094	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP115896,WP115897,WP115898,WP115899,WP115900,WP115901,WP115902
ICV Standard	WP115903
CCV Standard	WP115897
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP115905,WP114324,WP115904

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/03/25 10:23		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	12/03/25 10:23		rubina	OK
3	10PPBCN	10PPBCN	CAL3	12/03/25 10:23		rubina	OK
4	50PPBCN	50PPBCN	CAL4	12/03/25 10:23		rubina	OK
5	100PPBCN	100PPBCN	CAL5	12/03/25 10:23		rubina	OK
6	250PPBCN	250PPBCN	CAL6	12/03/25 10:23		rubina	OK
7	500PPBCN	500PPBCN	CAL7	12/03/25 10:23		rubina	OK
8	ICV1	ICV1	ICV	12/03/25 11:24		rubina	OK
9	ICB1	ICB1	ICB	12/03/25 11:24		rubina	OK
10	CCV1	CCV1	CCV	12/03/25 11:24		rubina	OK
11	CCB1	CCB1	CCB	12/03/25 11:24		rubina	OK
12	PB170802BL	PB170802BL	MB	12/03/25 11:25		rubina	OK
13	Q3740-01	WC1	SAM	12/03/25 11:32		rubina	OK
14	Q3740-01DUP	WC1DUP	DUP	12/03/25 11:32		rubina	OK
15	Q3750-07	FENCE WC-1	SAM	12/03/25 11:32		rubina	OK
16	Q3750-08	FENCE WC-2	SAM	12/03/25 11:32		rubina	OK
17	Q3753-05	AR520-0002	SAM	12/03/25 11:32		rubina	OK
18	Q3753-03	MOO-25-334-337	SAM	12/03/25 11:32		rubina	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB138094

Review By	rubina	Review On	12/3/2025 4:52:22 PM
Supervise By	lwona	Supervise On	12/3/2025 4:56:20 PM
SubDirectory	LB138094	Test	Reactive Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP115896,WP115897,WP115898,WP115899,WP115900,WP115901,WP115902
ICV Standard	WP115903
CCV Standard	WP115897
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP115905,WP114324,WP115904

19	CCV2	CCV2	CCV	12/03/25 11:37		rubina	OK
20	CCB2	CCB2	CCB	12/03/25 11:37		rubina	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q3740

Test : Corrosivity,Hexavalent Chromium,Ignitability,Percent Solids,pH,Reactive Cyanide,Reactive Sulfide

Prepbatch ID : PB170756,PB170758,PB170802,

Sequence ID/Qc Batch ID: LB138062,LB138063,LB138067,LB138071,LB138093,LB138094,

Standard ID :
WP113836,WP113838,WP113880,WP113881,WP114311,WP114324,WP115339,WP115340,WP115410,WP115853,WP115854,WP115855,WP115895,WP115896,WP115897,WP115898,WP115899,WP115900,WP115901,WP115902,WP115903,WP115904,WP115905,

Chemical ID :
E3987,M6151,M6186,M6187,M6200,W2202,W2651,W2652,W2668,W2926,W2979,W3019,W3093,W 3112,W3113,W3139,W3149,W3152,W3161,W3163,W3168,W3178,W3191,W3200,W3203,W3206,W3213,W3217,W3220,W3224,W3245,W3248,W3257,

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
11	Sodium hydroxide absorbing solution 0.25 N	WP113836	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 07/08/2025

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3371	Cyanide LCS Spike Solution, 5PPM	WP113838	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 07/08/2025

FROM 1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP113880	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/10/2025

FROM 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP113881	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/10/2025

FROM 0.14140gram of W2652 + 1000.00000ml of W3112 = 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
160	0.5M ZINC ACETATE	WP114311	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 08/19/2025

FROM 0.88900L of W3112 + 1.00000ml of M6151 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
607	PYRIDINE-BARBITURIC ACID	WP114324	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	Glass Pipette-A	Jignesh Parikh 08/19/2025

FROM 145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1836	HNO3 Hex-Chrome, 5M	WP115339	10/27/2025	01/28/2026	Rubina Mughal	None	None	Jignesh Parikh 10/27/2025

FROM 320.00000ml of M6187 + 680.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
126	5N sulfuric acid	WP115340	10/27/2025	04/27/2026	Rubina Mughal	None	None	Jignesh Parikh 10/27/2025

FROM 140.00000ml of M6186 + 860.00000ml of W3112 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
190	HEX CHROME PHOSPHATE BUFFER	WP115410	11/03/2025	05/03/2026	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 11/03/2025

FROM 0.84500L of W3112 + 68.04000gram of W3206 + 87.09000gram of W3168 = Final Quantity: 1.000 L

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
148	hexchrome digestion fluid	WP115853	12/01/2025	01/01/2026	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 12/01/2025

FROM 120.00000gram of W3163 + 4.00000L of W3112 + 80.00000gram of W3245 = Final Quantity: 4000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3354	Hexchrome Cleaning Solution	WP115854	12/01/2025	01/28/2026	Rubina Mughal	None	None	Iwona Zarych 12/01/2025

FROM 182.00000ml of M6200 + 727.00000ml of W3112 + 91.00000ml of M6187 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
114	hexavalent chromium color reagent	WP115855	12/01/2025	12/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 12/01/2025

FROM 0.25000gram of W2979 + 50.00000ml of E3987 = 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
3456	Cyanide Intermediate Working Std, 5PPM	WP115895	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 0.25000ml of W3257 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4	Calibation standard 500 ppb	WP115896	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 45.00000ml of WP113836 + 5.00000ml of WP115895 = 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
3761	Calibration-CCV CN Standard 250 ppb	WP115897	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 2.50000ml of WP115895 + 47.50000ml of WP113836 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
6	Calibration Standard 100 ppb	WP115898	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 1.00000ml of WP115895 + 49.00000ml of WP113836 = 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
7	Calibration Standard 50 ppb	WP115899	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 0.50000ml of WP115895 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
8	Calibration Standard 10 ppb	WP115900	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 1.00000ml of WP115896 + 49.00000ml of WP113836 = 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	WP115901	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 0.50000ml of WP115896 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
167	0 ppb CN calibration std	WP115902	12/03/2025	12/04/2025	Rubina Mughal	None	None	Iwona Zarych 12/03/2025

FROM 50.00000ml of WP113836 = 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
2168	RCN ICV STD, 100 PPB	WP115903	12/03/2025	12/04/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/03/2025

FROM 1.00000ml of WP113838 + 49.00000ml of WP113836 = 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	WP115904	12/03/2025	12/04/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	Glass Pipette-A	Iwona Zarych 12/03/2025

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
539	CN BUFFER	WP115905	12/03/2025	06/03/2026	Rubina Mughal	WETCHEM_SCALE_6 (MSC-4)	None	Iwona Zarych 12/03/2025

FROM 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24L1062001	05/16/2026	11/17/2025 / RUPESH	11/12/2025 / RUPESH	E3987

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)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	07/12/2026	08/13/2025 / Sagar	08/06/2025 / Sagar	M6186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

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)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA14125-36 / LEAD (II) CHROMATE, ACS, 500G	U19B018	01/23/2027	01/23/2017 / apatel	01/23/2017 / apatel	W2202

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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.	AA13450-36 / Potassium Dichromate, 500g(NEW)	T15F019	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2651

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P188-500 / Potassium Dichromate, 500g(new-2nd lot)	194664	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2652

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.	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 #
PCI Scientific Supply, Inc.	31390 / 1,5-Diphenylcarbazide	MKCR6636	12/09/2027	12/09/2022 / Iwona	12/09/2022 / Iwona	W2979

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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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.	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 #
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.	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.	01237-10KG / Megnasium Chloride Hexahydrate ACS 10KG	002126-2019-201	11/25/2029	11/25/2024 / Iwona	11/25/2024 / Iwona	W3152

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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.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / Iwona	12/09/2024 / Iwona	W3161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG	24E3156178	09/30/2027	12/10/2024 / Iwona	12/10/2024 / Iwona	W3163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G	24H0856239	04/19/2028	01/03/2025 / Iwona	01/03/2025 / Iwona	W3168

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 #
RICCA CHEMICAL COMPANY	1615-16 / pH 12.00 Buffer	2504F20	09/30/2026	04/11/2025 / Iwona	04/11/2025 / Iwona	W3200

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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.	EM-BX0035-3 / Barbituric Acid, 100 gms	WXBF3271V	05/16/2029	04/21/2025 / Iwona	04/21/2025 / Iwona	W3203

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRYS, ACS, 500G	MKCX1379	01/31/2029	04/29/2025 / Iwona	04/29/2025 / Iwona	W3206

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	MK25A21527	01/20/2029	05/21/2025 / Iwona	05/21/2025 / Iwona	W3213

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	2504D34	03/31/2027	07/02/2025 / jignesh	06/26/2025 / Iwona	W3217

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	MKCW7614	12/31/2026	06/26/2025 / Iwona	06/26/2025 / Iwona	W3220

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	45060288	12/24/2025	07/07/2025 / Iwona	07/07/2025 / Iwona	W3224

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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.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	240517-B088254	03/31/2028	11/12/2025 / jignesh	10/03/2025 / Iwona	W3245

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	250904J	02/28/2027	10/03/2025 / Iwona	10/03/2025 / Iwona	W3248

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	15100125	03/31/2026	11/19/2025 / Iwona	11/19/2025 / Iwona	W3257

Alfa Aesar

Certificate of analysis

Product No.	14125
Product:	Lead(II) chromate, ACS, 98%
Lot No.:	U19B018

Test	Limits	Results
Assay	98.0 % min	99.3 %
Soluble matter	0.15 % max	< 0.02 %
Carbon compounds	0.01 % max	< 0.01 %

Traceable to NIST? Yes

This document has been electronically generated and does not require a signature.

ThermoFisher SCIENTIFIC

Certificate of Analysis

Product No.: 13450

Product: Potassium dichromate, ACS, 99.0% min

Lot No.: T15F019

Test	Limits	Results
Appearance	Orange-red crystals	Orange-red crystals
Identification	To Pass	Passes
Purity	99.0 % min	99.67 %
Insoluble matter	0.005 % max	0.004 %
Loss on drying	0.05 % max	0.03 %
Chloride	0.001 % max	< 0.001 %
Sulfate	0.005 % max	< 0.005 %
Iron	0.001 % max	< 0.001 %
Calcium	0.003 % max	0.0012 %
Sodium	0.02 % max	0.0047 %

Sigma-Aldrich.

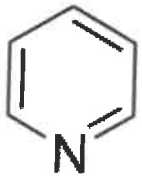
W3019
Rec 4/3/23

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P188	Quality Test / Release Date	08/12/2019
Lot Number	194664		
Description	POTASSIUM DICHROMATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Aug/2024
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Fine, orange-red crystals
ASSAY	%	>= 99	99.2
CALCIUM	%	<= 0.003	<0.003
CHLORIDE	%	<= 0.001	<0.001
LOSS ON DRYING @ 105 C	%	<= 0.05	<0.05
SULFATE (SO4)	%	<= 0.005	<0.005
INSOLUBLE MATTER	%	<= 0.005	0.003
IRON (Fe)	%	<= 0.001	<0.001
SODIUM (Na)	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24L1062001
Manufactured Date: 2024-10-04
Expiration Date:2027-10-04
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	99.7 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.1
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Recieved on 11/12/25

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3987

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

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

avantor™ | J.T.Baker®

M6151

R→ 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

James T Ethier

Jamie Ethier
Vice President Global Quality

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

M6186

Recien Date 8- 08/06/25

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H_2SO_4)	95.0 - 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS - Color (APHA)	≤ 10	5
ACS - Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS - Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities - Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities - Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities - Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities - Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities - Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities - Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities - Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities - Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 286 1700

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

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Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

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

Jamie Croak
Director Quality Operations, Bioscience Production

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

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

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 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

Jamie Croak
Director Quality Operations, Bioscience Production

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

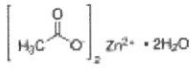
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

Sigma-Aldrich.

W 2979

Rec: 12/08/22

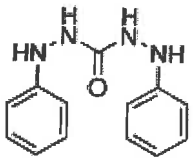
exp. 12/08/27

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:
1,5-Diphenylcarbazide - ACS reagent

Product Number:	**259225**
Batch Number:	**MKCR6636**
Brand:	SIAL
CAS Number:	140-22-7
MDL Number:	MFCD00003013
Formula:	C13H14N4O
Formula Weight:	242.28 g/mol
Quality Release Date:	02 JUN 2022



Test	Specification	Result
Appearance (Color) Off-White to Pink, Light Purple or Tan	Conforms to Requirements	Pink
Appearance (Form)	Powder or Chunks	Powder
Melting Point	173.0 - 176.0 °C	173.0 °C
Infrared Spectrum	Conforms to Structure	Conforms
Residue on ignition (Ash) 15 minutes, 800 Degrees Celsius	≤ 0.05 %	0.01 %
Solubility	Pass	Pass
Sensitivity Test	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms

Larry Coers, Director
Quality Control
Milwaukee, WI US

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
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customerservice@riccachemical.com

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

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.

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

RICCA CHEMICAL COMPANY®

W3149 Received on 10/16/24 by IZ

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

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

W3152 Received on 11/25/24 by IZ

Chem-Impex International, Inc.

Tel: (630) 766-2112
Fax: (630) 766-2218
E-mail: sales@chemimpex.com
Web site: www.chemimpex.com
Shipping and Correspondence:
935 Dillon Drive
Wood Dale, IL 60191
Manufacturing site:
825 Dillon Drive
Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
Lot Number	002126-2019-201
Product	**Magnesium chloride hexahydrate**
	Magnesium chloride•$6H_2O$
CAS Number	7791-18-6
Molecular Formula	$MgCl_2$•$6H_2O$
Molecular Weight	203.3

Appearance	White crystals
Solubility	167 g in 100 mL water
Melting Point	~ 115 °C
Heavy Metals	4.393 ppm
Anion	Nitrate (NO_3) : < 0.001% Phosphate (PO_4) : < 5 ppm Sulfate (SO_4) : < 0.002%
Cation	Ammonium (NH_4) : < 0.002% Barium (Ba) : 0.005% Calcium (Ca) : 0.01% Iron (Fe) : 4.5 ppm Manganese (Mn) : 0.624 ppm Potassium (K) : 0.004% Sodium (Na) : 0.000003% Strontium (Sr) : 0.005%
Insoluble material	0.0021%
Assay by titration	100.83%
Grade	ACS reagent
Storage	Store at RT

Certificate of Analysis

Catalog Number: 01237 **Lot Number: 002126-2019-201**

Remarks	See material safety data sheet for additional information
	For laboratory use only

The foregoing is a copy of the Certificate of Analysis as provided by our supplier

Bala Kumar
Quality Control Manager

RICCA CHEMICAL COMPANY®

W3161 Rec. on 12/09/24 by IZ

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

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

W3163 Rec. on 12/10/24 by IZ

Certificate of Analysis

Material	BDH9284-2.5KG
Material Description	BDH SODIUM CARB ANHYD ACS 2.5KG
Grade	U S P REAGENT (ACS GRADE)
Batch	24E3156178
Reassay Date	09/30/2027
CAS Number	497-19-8
Molecular Formula	Na2CO3
Molecular Mass	105.99
Date of Manufacture	09/01/2023
Storage	Room Temperature

Material is hygroscopic. Protect from Moisture.
Additional Product Description:

Characteristics	Specifications	Measured Values
Appearance	Fine white granular powder	Fine white granular powder
Calcium	<= 0.03 %	0.003 %
Chloride	<= 0.001 %	0.0003 %
Heavy Metals (as Pb)	<= 0.0005 %	0.0001 %
Insolubles	<= 0.01 %	0.001 %
Iron	<= 0.0005 %	0.0001 %
Loss on Heating	<= 1.0 %	0.03 %
Magnesium	<= 0.005 %	0.001 %
Phosphate	<= 0.001 %	0.001 %
Potassium	<= 0.005 %	0.003 %
Purity	>= 99.5 %	100.0 %
Silica	<= 0.005 %	0.001 %
Sulfur Compounds	<= 0.003 %	0.002 %

Extra Description: Meets Reagent Specifications for testing USP/NF monographs

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed above.

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

Material	BDH9266-500G
Material Description	BDH POTASS PHOSPHAT DBSC 500GM
Grade	ACS GRADE
Batch	24H0856239
Reassay Date	04/19/2028
CAS Number	7758-11-4
Molecular Formula	K2HPO4
Molecular Mass	174.18
Date of Manufacture	04/19/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Fine white crystalline powder	Fine white crystalline powder
Chloride	<= 0.003 %	0.002 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0005 %
Insolubles	<= 0.01 %	<0.01 %
Iron	<= 0.001 %	<0.001 %
Loss on Drying	<= 1.0 %	<0.5 %
Nitrogen Compounds	<= 0.001 %	<0.001 %
pH (5%, Water) @25C	8.5 - 9.6	8.8
Purity	>= 98.0 %	99.1 %
Sodium	<= 0.05 %	<0.05 %
Sulfate	<= 0.005 %	<0.002 %

CUSTOMER PART # BDH9266-500G

Internal ID #: 793

Signature

We certify that this batch conforms to the specifications listed above.

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.

RICCA CHEMICAL COMPANY®

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

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

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W3200 Received on 04/11/2025 by IZ

Certificate of Analysis

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

Lot Number: 2504F20 **Product Number:** 1615

Manufacture Date: APR 08, 2025
Expiration Date: SEP 2026

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 (from 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)	12.009	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
1615-5	20 L Cubitainer®	18 months

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

Jose Pena (04/08/2025)
Operations Manager

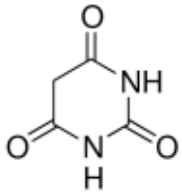
This product was tested in an ISO 17025 Accredited Laboratory

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:
Barbituric acid - ReagentPlus® , 99%

Product Number:	**185698**
Batch Number:	**WXBF3271V**
Brand:	SIAL
CAS Number:	67-52-7
Formula:	C4H4N2O3
Formula Weight:	128,09 g/mol
Quality Release Date:	16 MAY 2024



Test	Specification	Result
Appearance (Colour)	White to Off-White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms to Structure	Conforms
Purity (Titration by NaOH)	98.5 - 101.5 %	100.4 %
GC (area %) VPCT	≥ 98 %	100 %

Kang Chen
Quality Manager
Wuxi , China CN

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:
Potassium phosphate monobasic - ACS reagent, ≥99.0%

KH_2PO_4

Product Number:	**P0662**
Batch Number:	**MKCX1379**
Brand:	SIGALD
CAS Number:	7778-77-0
MDL Number:	MFCD00011401
Formula:	H2KO4P
Formula Weight:	136.09 g/mol
Quality Release Date:	27 JAN 2025
Recommended Retest Date:	JAN 2029

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.9 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying At 105ºC	≤ 0.2 %	< 0.1 %
pH (c = 5%, 25 deg C)	4.1 - 4.5	4.5
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO4)	≤ 0.003 %	< 0.003 %
Heavy Metals by ICP	≤ 0.001 %	< 0.001 %
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period 4 Years	----------	----------

Larry Coers, Director
Quality Control
Milwaukee, WI US

N3213 Received on 5/21/25 by 12

Certificate of Analysis

Material	BDHVBDH7206-1
Material Description	IODINE SOLUTION 0.025N
Lot	25A2461008
Expires end of	2029-Jan-20
Molecular mass	0
Last Quality Control	2025-Jan-24
Date of manufacture	2025-Jan-21
Made in	United States
Manufacturer Source Batch	MK25A21527

Additional infomation

Characteristics	Specifications	Measured values
Prepared to formulation on file	Confirmed	Confirmed
Appearance	Passes Test	Passes Test
Normality, N	0.0200 - 0.0300	0.0268

Signature

We certify that this batch conforms to the specifications listed above.

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

Michelle Bales - Sr. Manager Quality Assurance
Avantor Performance Materials, LLC

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Certificate of Analysis

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

Lot Number: 2504D34 **Product Number:** 1551

Manufacture Date: APR 03, 2025
Expiration Date: MAR 2027

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 (from ACS)

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

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.003	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 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)
1551-2.5	10 L Cubitainer®	24 months
1551-20	20 x 20 mL pack	24 months
1551-32	1 L natural poly	24 months
1551-5	20 L Cubitainer®	24 months

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

Jose Pena (04/03/2025)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

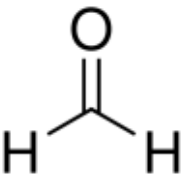
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Formaldehyde solution - ACS reagent, 37 wt. % in H_2O, contains 10-15% Methanol as stabilizer (to prevent polymerization)

Product Number:	**252549**
Batch Number:	**MKCW7614**
Brand:	SIAL
MDL Number:	MFCD00003274
Quality Release Date:	05 DEC 2024
Recommended Retest Date:	DEC 2026



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Titration by H2SO4	36.5 - 38.0 %	36.6 %
Residue on ignition (Ash)	≤ 0.005 %	0.004 %
Color Test	≤ 10 APHA	5 APHA
Chloride (Cl)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 5 ppm	< 1 ppm
Heavy Metals by ICP-OES	≤ 5 ppm	2 ppm
Sulfate (SO4)	< = 0.002%	< = 0.002%
Titratable Acid (meq/g)	≤ 0.006	< 0.006
Note Stabilized with 10% to 15% Methanol	Confirmed	Conforms
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period 2 Years	----------	----------

Larry Coers, Director
Quality Control
Milwaukee, WI US

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: June 25, 2025

Lot Number: **45060288**

Expiration Date: December 24, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.000mg/mL
Concentration (CN)	990 - 1,010ppm	1,000ppm
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*

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
2025070315:30:45ahoffman-0-0

ISO9001:2015 Registration #0306-01

W3245 Received on 10/3/25 by IZ

PHARMCO
BY GREENFIELD GLOBAL

CERTIFICATE OF ANALYSIS

Product Name	Sodium Hydroxide Pellets
Grade	ACS/NF/EP/BP Grade
Catalog #	289ACSNFEPBP
Item #	103433
Batch #	240517-B088254
Date of Manufacture:	01 Apr 2024
Recommended Retest Date:	31 Mar 2028
Customer PO #	6063391
Packaging Type	Drum Fiber 50 Kg

TEST	MONO-GRAPH	SPECIFICATION	RESULT
Assay	ACS	NLT 97.0%	98.6 %
Assay - Total Alkali	NF	95.0% - 100.5%	98.6 %
Assay - Content of Sodium	NF	54.0% - 59.8%	56.7 %
Appearance of solution	EP/BP	The solution is clear and colourless	Pass
Sodium Carbonate (Na2CO3)	ACS	1.0% max.	0.9 %
Sodium Carbonate (Na2CO3)	NF	3.0% max.	0.9 %
Carbonates	EP/BP	Maximum 2.0%, calculated as Na2CO3	0.9 %
Sulfate (SO4)	ACS	0.003% max.	LT 0.003%
Sulfates	EP/BP	Maximum 200 ppm	LT 20 ppm
Chloride (Cl)	ACS	0.005% max.	LT 0.005%
Chlorides	EP/BP	Maximum 200 ppm	LT 50 ppm
Nitrogen Compounds (as N)	ACS	0.001% max.	LT 0.001%
Phosphate (PO4)	ACS	0.001% max.	LT 0.001%
Heavy Metals (as Ag)	ACS	0.002% max	LT 0.002%
Iron (Fe)	ACS	0.001% max.	LT 0.001%
Iron	EP/BP	Maximum 10 ppm, determined on Solution S	LT 10 ppm

PHARMCO
BY GREENFIELD GLOBAL

CERTIFICATE OF ANALYSIS

TEST	MONO-GRAPH	SPECIFICATION	RESULT
Nickel (Ni)	ACS	0.001%, max	LT 0.001%
Mercury (Hg)	ACS	0.1 ppm max.	LT 0.1 ppm
Calcium (Ca)	ACS	0.005%, max	LT 0.005%
Magnesium (Mg)	ACS	0.002% max.	LT 0.002%
Potassium (K)	ACS	0.02% max.	LT 0.02%
Potassium (K)	NF	NMT 0.5%	LT 0.5%
Identification A - pH	EP/BP	Minimum 11.0	Pass
Identification B - Sodium	EP/BP	2 mL of Solution S gives reaction (a) of sodium	Pass
Identification B - pH <791>	NF	NLT 11.0	Pass
Identification A - pH	EP/BP	Minimum 11.0	12.7
Insoluble Substances and Organic Matter	NF	To Pass Test	Pass

Certification and Compliance Statements

This lot of Sodium Hydroxide complies with all of the current requirements listed in the American Chemical Society, National Formulary, European Pharmacopoeia, and British Pharmacopoeia monographs. Certain test data have been supplied by third parties.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

This product is for further commercial manufacturing, laboratory, or research use, and may be used as a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

This document was electronically signed by Jahdese Lewis on 23 Jul 2025 10:22 AM to indicate Quality Assurance Approval and to release this batch.

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W3248 Received on 10/08/25 by IZ

Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 250904J **Product Number:** 7900

Manufacture Date: SEP 03, 2025
Expiration Date: FEB 2027

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
Organic Preservative	Proprietary	
Sodium Carbonate	497-19-8	ACS
Sodium Thiosulfate Pentahydrate	10102-17-7	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
7900-32	1 L natural poly	18 months

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

Jose Pena (09/03/2025)
Operations Manager

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
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Certificate of Analysis

Cyanide Standard, 1000 ppm CN^-

Lot Number: 15100125 **Product Number:** 2543

Manufacture Date: OCT 06, 2025
Expiration Date: MAR 2026

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
Sodium Hydroxide	1310-73-2	Reagent (from ACS)
Potassium Cyanide	151-50-8	ACS

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)
2543-4	120 mL amber poly	6 months

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

Ernest Mahan (10/06/2025)
Plant Manager

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/1/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:40
In Date: 11/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 11/27/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC: LB138050

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
Q3720-01	BUR-25-0059	1	1.14	10.41	11.55	11.09	95.6	
Q3725-01	STOCKPILE-SAMPLES	7	1.11	10.65	11.76	9.99	83.4	
Q3725-02	STOCKPILE-SAMPLES	2	1.11	10.65	11.76	9.99	83.4	
Q3725-04	STOCKPILE-SAMPLES	8	1.11	10.65	11.76	9.99	83.4	
Q3732-01	HD-01-11-26-2025	3	1.15	10.76	11.91	10.5	86.9	
Q3732-02	HD-01-11-26-2025-E2	4	1.11	10.73	11.84	9.82	81.2	
Q3733-01	SU-04-11-26-2025	5	1.15	10.59	11.74	10.84	91.5	
Q3733-02	SU-04-11-26-2025-E2	6	1.16	10.67	11.83	10.67	89.1	
Q3735-01	BU-3-112625	9	1.14	10.63	11.77	10.22	85.4	
Q3736-01	D1	10	1.19	10.63	11.82	10.08	83.6	
Q3739-01	GSB1A	11	1.16	10.88	12.04	11.00	90.4	
Q3739-02	GSB1B	12	1.13	10.38	11.51	10.32	88.5	
Q3739-03	GSB2A	13	1.16	10.47	11.63	10.03	84.7	
Q3739-04	GSB2B	14	1.18	10.67	11.85	10.41	86.5	
Q3740-01	WC1	15	1.13	11.45	12.58	11.44	90.0	

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

WORKLIST(Hardcopy Internal Chain)

JB 138050

WorkList Name : %1-112625 **WorkList ID :** 193363 **Department :** Wet-Chemistry **Date :** 11-26-2025 13:02:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3720-01	BUR-25-0059	Solid	Percent Solids	Cool 4 deg C	PSEG03	E42	11/25/2025	Chemtech -SO
~~Q3725-01~~	~~STOCKPILE-SAMPLES~~	~~Solid~~	~~Percent Solids~~	~~Cool 4 deg C~~	~~ROMA02~~	~~D41~~	~~11/25/2025~~	~~Chemtech -SO~~
~~Q3725-02~~	~~STOCKPILE-SAMPLES~~	~~Solid~~	~~Percent Solids~~	~~Cool 4 deg C~~	~~ROMA02~~	~~D41~~	~~11/25/2025~~	~~Chemtech -SO~~
Q3725-04	STOCKPILE-SAMPLES	Solid	Percent Solids	Cool 4 deg C	ROMA02	D41	11/25/2025	Chemtech -SO
Q3732-01	HD-01-11-26-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	--Sele	11/26/2025	Chemtech -SO
Q3732-02	HD-01-11-26-2025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	A12	11/26/2025	Chemtech -SO
Q3733-01	SU-04-11-26-2025	Solid	Percent Solids	Cool 4 deg C	PSEG05	--Sele	11/26/2025	Chemtech -SO
Q3733-02	SU-04-11-26-2025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	A11	11/26/2025	Chemtech -SO
Q3735-01	BU-3-112625	Solid	Percent Solids	Cool 4 deg C	PSEG05	A11	11/26/2025	Chemtech -SO
Q3736-01	D1	Solid	Percent Solids	Cool 4 deg C	JPCL01	A11	11/26/2025	Chemtech -SO
Q3739-01	GSB1A	Solid	Percent Solids	Cool 4 deg C	GENV01	A11	11/26/2025	Chemtech -SO
Q3739-02	GSB1B	Solid	Percent Solids	Cool 4 deg C	GENV01	A11	11/26/2025	Chemtech -SO
Q3739-03	GSB2A	Solid	Percent Solids	Cool 4 deg C	GENV01	A11	11/26/2025	Chemtech -SO
Q3739-04	GSB2B	Solid	Percent Solids	Cool 4 deg C	GENV01	A11	11/26/2025	Chemtech -SO
Q3740-01	WC1	Solid	Percent Solids	Cool 4 deg C	GENV01	A11	11/26/2025	Chemtech -SO

JB 12/01/25

JB 12/01/25

Date/Time 11.26.25 15:30

Raw Sample Received by: JB WC

Raw Sample Relinquished by:

Date/Time 11-26-25 18:00

Raw Sample Received by:

Raw Sample Relinquished by: JB WC

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. Q3740
COC Number 2047989

CLIENT INFORMATION	CLIENT PROJECT INFORMATION	CLIENT BILLING INFORMATION
REPORT TO BE SENT TO: COMPANY: ~~Diamond~~ GECP Inc	PROJECT NAME: Diamond	BILL TO: GECP INC PO#:
ADDRESS: 8 CARRIAGE	PROJECT NO.: LOCATION: NJ	ADDRESS: 8 CARRG
CITY Succasunna STATE: NJ ZIP:	PROJECT MANAGER:	CITY Succasunna STATE: NJ ZIP:
ATTENTION:	e-mail:	ATTENTION: PHONE:
PHONE: FAX:	PHONE: FAX:	

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

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 hazsite, excel

ANALYSIS

1 VOC, 2 BN+15, 3 TCLP Metals, 4 RCRA Cyanide/Sulfide, 5 PCBs, 6 pH/Ignitibility, 7 EPH, 8 HexChromium, 9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
PRESERVATIVES								← Ice									← Specify Preservatives A-HCl B-HN03 C-H2SO4 D-NaOH E-ICE F-OTHER
1.	WC1	Soil	X		11/26/25	1315	3	X	X	X	X	X	X	X	X		
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	11/26/25 1442	1. [signature]
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 1.6 °C
Comments: Ice

Page ____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

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

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

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3740 GENV01
Client Name : G Environmental
Client Contact : Gary Landis
Invoice Name : G Environmental
Invoice Contact : Gary Landis

Order Date : 11/26/2025 4:30:00 PM
Project Name : Dimond
Receive DateTime : 11/26/2025 2:42:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 1
EDD Type : Excel NJ
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3740-01	WC1	Solid	11/19/2025	13:15					
					VOC-TCLVOA-10		8260C		10 Bus. Days

Relinguished By : [signature]
Date / Time : 11/26/25 1648

Received By : [signature]
Date / Time : 12/01/25 8:30
Storage Area : VOA Refridgerator Room

R46
R2