

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

LAB CHRONICLE

OrderID:	Q3238	OrderDate:	9/29/2025 1:34:00 PM
Client:	Yannuzzi Group, Inc.	Project:	Edison Yard
Contact:	Alyssa Yannuzzi	Location:	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3238-01	RCA	SOIL			09/18/25 10:31			09/29/25
			Cyanide	9012B		09/30/25	09/30/25 10:53	



SAMPLE DATA

Report of Analysis

Client:	Yannuzzi Group, Inc.	Date Collected:	09/18/25 10:31
Project:	Edison Yard	Date Received:	09/29/25
Client Sample ID:	RCA	SDG No.:	Q3238
Lab Sample ID:	Q3238-01	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.10	J	1	0.040	0.24	mg/Kg	09/30/25 08:00	09/30/25 10:53	9012B

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

Initial and Continuing Calibration Verification

Client: Yannuzzi Group, Inc.

SDG No.: Q3238

Project: Edison Yard

RunNo.: LB137364

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.097	0.099	98	90-110	09/30/2025
Sample ID: CCV1 Cyanide	mg/L	0.24	0.25	96	90-110	09/30/2025
Sample ID: CCV2 Cyanide	mg/L	0.24	0.25	96	90-110	09/30/2025
Sample ID: CCV3 Cyanide	mg/L	0.25	0.25	100	90-110	09/30/2025



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

Initial and Continuing Calibration Blank Summary

Client: Yannuzzi Group, Inc.

SDG No.: Q3238

Project: Edison Yard

RunNo.: LB137364

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	09/30/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	09/30/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	09/30/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	09/30/2025

Preparation Blank Summary

Client: Yannuzzi Group, Inc.

SDG No.: Q3238

Project: Edison Yard

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: Cyanide	PB169914BL mg/Kg	< 0.1250	0.1250	U	0.042	0.25	09/30/2025

Matrix Spike Summary

Client:	Yannuzzi Group, Inc.	SDG No.:	Q3238
Project:	Edison Yard	Sample ID:	Q3245-01
Client ID:	13-1MS	Percent Solids for Spike Sample:	93.9

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.10		0.044	U	2.1	1	100		09/30/2025

Matrix Spike Summary

Client:	Yannuzzi Group, Inc.	SDG No.:	Q3238
Project:	Edison Yard	Sample ID:	Q3245-01
Client ID:	13-1MSD	Percent Solids for Spike Sample:	93.9

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	2.00		0.044	U	2.1	1	95		09/30/2025

Duplicate Sample Summary

Client:	Yannuzzi Group, Inc.	SDG No.:	Q3238
Project:	Edison Yard	Sample ID:	Q3245-01
Client ID:	13-1DUP	Percent Solids for Spike Sample:	93.9

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.044	U	0.043	U	1	0		09/30/2025

Duplicate Sample Summary

Client: Yannuzzi Group, Inc.	SDG No.: Q3238
Project: Edison Yard	Sample ID: Q3245-01
Client ID: 13-1MSD	Percent Solids for Spike Sample: 93.9

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.10		2.00		1	5		09/30/2025

Laboratory Control Sample Summary

Client: Yannuzzi Group, Inc.

SDG No.: Q3238

Project: Edison Yard

Run No.: LB137364

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB169914BS							
Cyanide	mg/Kg	5	4.80		96	1	85-115	09/30/2025



RAW DATA

LB137364

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

9/30/2025 11:19

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	97.436	0.0	0.086	
ICB1	0.802	0.0	0.001	
CCV1	244.448	0.0	0.216	
CCB1	0.488	0.0	0.001	
PB169914BL	0.616	0.0	0.001	
PB169914BS	96.911	0.0	0.086	
LOWPB169914	9.605	0.0	0.009	
HIGHPB169914	491.523	0.0	0.435	
Q3238-01	2.176	0.0	0.002	
Q3245-01	0.796	0.0	0.001	
Q3245-01DUP	0.658	0.0	0.001	
Q3245-01MS	39.682	0.0	0.035	
Q3245-01MSD	38.396	0.0	0.034	
Q3245-09	0.903	0.0	0.001	
CCV2	240.975	0.0	0.213	
CCB2	0.378	0.0	0.001	
Q3245-17	1.652	0.0	0.002	
CCV3	248.495	0.0	0.220	
CCB3	0.645	0.0	0.001	

96% (90-110)

98% (90-110)

09/30/2025

RM

N	19
Mean	79.820
SD	133.7809
CV%	167.60

Aquakem v. 7.2AQ1

Results from time period:

Tue Sep 30 10:45:49 2025

Tue Sep 30 11:07:43 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	0.4719	µg/l	9/30/2025 9:05:32	
5.0PPBCN	A	Total CN	P	5.61	µg/l	9/30/2025 9:05:33	
10PPBCN	A	Total CN	P	10.4396	µg/l	9/30/2025 9:05:34	
50PPBCN	A	Total CN	P	47.8297	µg/l	9/30/2025 9:05:35	
100PPBCN	A	Total CN	P	100.8495	µg/l	9/30/2025 9:05:36	
250PPBCN	A	Total CN	P	249.5344	µg/l	9/30/2025 9:05:37	
500PPBCN	A	Total CN	P	500.2651	µg/l	9/30/2025 9:05:38	
ICV1	S	Total CN	P	97.436	µg/l	9/30/2025 10:45:50	
ICB1	S	Total CN	P	0.8022	µg/l	9/30/2025 10:45:52	
CCV1	S	Total CN	P	244.4483	µg/l	9/30/2025 10:45:54	
CCB1	S	Total CN	P	0.4876	µg/l	9/30/2025 10:45:56	
PB169914BL	S	Total CN	P	0.6162	µg/l	9/30/2025 10:45:58	
PB169914BS	S	Total CN	P	96.9115	µg/l	9/30/2025 10:45:59	
LOWPB169914	S	Total CN	P	9.6052	µg/l	9/30/2025 10:53:25	
HIGHPB169914	S	Total CN	P	491.5231	µg/l	9/30/2025 10:53:31	
Q3238-01	S	Total CN	P	2.1765	µg/l	9/30/2025 10:53:32	
Q3245-01	S	Total CN	P	0.7959	µg/l	9/30/2025 10:53:34	
Q3245-01DUP	S	Total CN	P	0.6575	µg/l	9/30/2025 11:00:56	
Q3245-01MS	S	Total CN	P	39.6817	µg/l	9/30/2025 11:01:02	
Q3245-01MSD	S	Total CN	P	38.3958	µg/l	9/30/2025 11:01:03	
Q3245-09	S	Total CN	P	0.9027	µg/l	9/30/2025 11:01:04	
CCV2	S	Total CN	P	240.9746	µg/l	9/30/2025 11:07:35	
CCB2	S	Total CN	P	0.3782	µg/l	9/30/2025 11:07:36	
Q3245-17	S	Total CN	P	1.652	µg/l	9/30/2025 11:07:38	
CCV3	S	Total CN	P	248.4947	µg/l	9/30/2025 11:07:40	
CCB3	S	Total CN	P	0.6452	µg/l	9/30/2025 11:07:42	

Calibration results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

9/30/2025 9:06

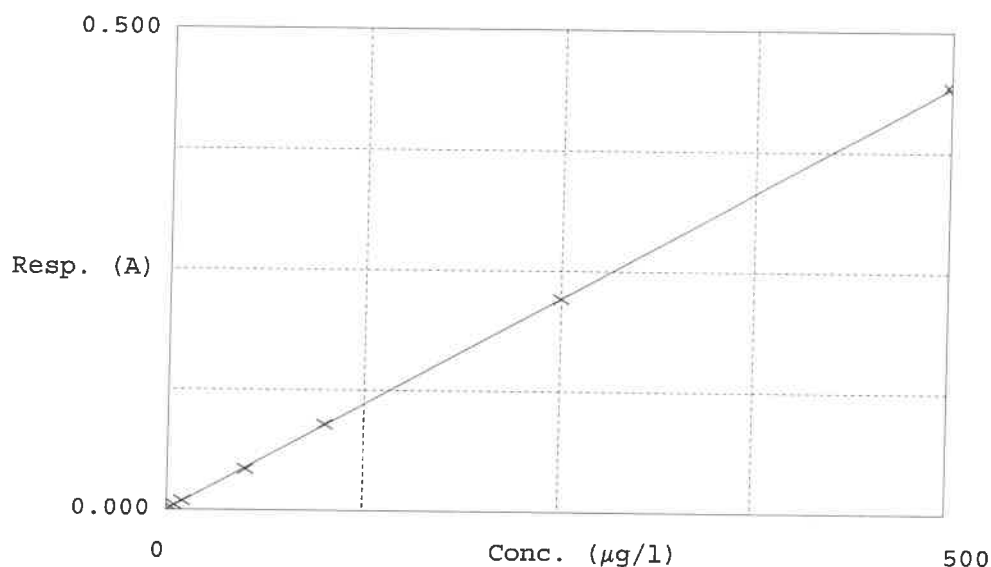
Test Total CN

Accepted 9/30/2025 9:05

Factor 1131
Bias 0

Coeff. of det. 0.999968

Errors



	Calibrator	Response	Calc. con.	Conc.	^{Re} Errors
1	0.0PPBCN	0.001	0.4719	0.0000	-
2	5.0PPBCN	0.005	5.6100	5.0000	12.2
3	10PPBCN	0.009	10.4396	10.0000	4.4
4	50PPBCN	0.042	47.8297	50.0000	-4.3
5	100PPBCN	0.089	100.8495	100.0000	0.8
6	250PPBCN	0.221	249.5344	250.0000	-0.2
7	500PPBCN	0.443	500.2651	500.0000	0.1

09/30/2025
RM

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

SDG No : N/A

Start Digest Date: 09/30/2025 Time : 08:00 Temp : 123 °C

Matrix : SOIL

End Digest Date: 09/30/2025 Time : 09:30 Temp : 126 °C

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : MC-1,MC-2

Filter paper ID : N/A

Prep Technician Signature: 

Weigh By : JP

pH Meter ID : N/A

Supervisor Signature: 12

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP113838
MS/MSD SPIKE SOL.	0.40ML	WP113837
PBS003	50.0ML	W3112
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
50% v/v H2SO4	5.0ML	WP112826
51% w/v MgCL2	2.0ML	WP112827
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	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP113837
LOWSTD	LOWSTD	0.1ML	WP113837

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/30/2025 09:40	 WC	RM WC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB169914BL	PBS914	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB169914BS	LCS914	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3238-01	RCA	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-01DUP	13-1DUP	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-01MS	13-1MS	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-01MSD	13-1MSD	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-01	13-1	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-09	12-8	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3245-17	12-1	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn-09-30

WorkList ID : 192178

Department : Distillation

Date : 09-30-2025 07:22:39

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3238-01	RCA	Solid	Cyanide	Cool 4 deg C	YANN01	D31	09/18/2025	9012B
Q3245-01	13-1	Solid	Cyanide	Cool 4 deg C	PSEG03	D31	09/29/2025	9012B
Q3245-09	12-8	Solid	Cyanide	Cool 4 deg C	PSEG03	D31	09/29/2025	9012B
Q3245-17	12-1	Solid	Cyanide	Cool 4 deg C	PSEG03	D31	09/29/2025	9012B

Date/Time 09/30/2025 07:30

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 09/30/2025 10:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137364

Review By	rubina	Review On	10/1/2025 10:01:09 AM
Supervise By	Iwona	Supervise On	10/1/2025 10:46:13 AM
SubDirectory	LB137364	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP114954,WP114955,WP114956,WP114957,WP114958,WP114959,WP114960		
ICV Standard	W3012		
CCV Standard	WP114955		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP114324,WP114962		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	09/30/25 09:05		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	09/30/25 09:05		rubina	OK
3	10PPBCN	10PPBCN	CAL3	09/30/25 09:05		rubina	OK
4	50PPBCN	50PPBCN	CAL4	09/30/25 09:05		rubina	OK
5	100PPBCN	100PPBCN	CAL5	09/30/25 09:05		rubina	OK
6	250PPBCN	250PPBCN	CAL6	09/30/25 09:05		rubina	OK
7	500PPBCN	500PPBCN	CAL7	09/30/25 09:05		rubina	OK
8	ICV1	ICV1	ICV	09/30/25 10:45		rubina	OK
9	ICB1	ICB1	ICB	09/30/25 10:45		rubina	OK
10	CCV1	CCV1	CCV	09/30/25 10:45		rubina	OK
11	CCB1	CCB1	CCB	09/30/25 10:45		rubina	OK
12	PB169914BL	PB169914BL	MB	09/30/25 10:45		rubina	OK
13	PB169914BS	PB169914BS	LCS	09/30/25 10:45		rubina	OK
14	LOWPB169914	LOWPB169914	SAM	09/30/25 10:53		rubina	OK
15	HIGHPB169914	HIGHPB169914	SAM	09/30/25 10:53		rubina	OK
16	Q3238-01	RCA	SAM	09/30/25 10:53		rubina	OK
17	Q3245-01	13-1	SAM	09/30/25 10:53		rubina	OK
18	Q3245-01DUP	13-1DUP	DUP	09/30/25 11:00		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137364

Review By	rubina	Review On	10/1/2025 10:01:09 AM
Supervise By	Iwona	Supervise On	10/1/2025 10:46:13 AM
SubDirectory	LB137364	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP114954,WP114955,WP114956,WP114957,WP114958,WP114959,WP114960		
ICV Standard	W3012		
CCV Standard	WP114955		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP114324,WP114962		

19	Q3245-01MS	13-1MS	MS	09/30/25 11:01		rubina	OK
20	Q3245-01MSD	13-1MSD	MSD	09/30/25 11:01		rubina	OK
21	Q3245-09	12-8	SAM	09/30/25 11:01		rubina	OK
22	CCV2	CCV2	CCV	09/30/25 11:07		rubina	OK
23	CCB2	CCB2	CCB	09/30/25 11:07		rubina	OK
24	Q3245-17	12-1	SAM	09/30/25 11:07		rubina	OK
25	CCV3	CCV3	CCV	09/30/25 11:07		rubina	OK
26	CCB3	CCB3	CCB	09/30/25 11:07		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3238

Test : Cyanide,Percent Solids

Prepbatch ID : PB169914,

Sequence ID/Qc Batch ID: LB137364,

Standard ID :

WP112643,WP112826,WP112827,WP113836,WP113837,WP113838,WP114324,WP114953,WP114954,WP114955,WP114956,WP114957,WP114958,WP114959,WP114960,WP114962,

Chemical ID :

M6041,M6151,W2668,W3012,W3019,W3112,W3113,W3139,W3152,W3203,W3214,W3224,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	WP112643	04/09/2025	10/09/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 04/09/2025
<u>FROM</u> 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1714	Sulfuric Acid, 50% (v/v)	WP112826	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych 04/25/2025
<u>FROM</u> 1000.00000ml of M6041 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP112827	04/25/2025	10/25/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 04/25/2025
<u>FROM</u> 500.00000ml of W3112 + 510.00000gram of W3152 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	WP113836	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 07/08/2025
<u>FROM</u> 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

[illegible]

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP113838	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) <u>FROM</u> 1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	WP114324	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Jignesh Parikh 08/19/2025
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP114953	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/30/2025
<u>FROM</u> 0.25000ml of W3214 + 49.75000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP114954	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 45.00000ml of WP113836 + 5.00000ml of WP114953 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	WP114955	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/30/2025
<u>FROM</u> 2.50000ml of WP114953 + 47.50000ml of WP113836 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP114956	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 1.00000ml of WP114953 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	WP114957	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 09/30/2025
<u>FROM</u> 0.50000ml of WP114953 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP114958	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 09/30/2025
FROM 1.00000ml of WP114954 + 49.00000ml of WP113836 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP114959	09/30/2025	10/01/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 09/30/2025
FROM 0.50000ml of WP114954 + 49.50000ml of WP113836 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP114960	09/30/2025	10/01/2025	Rubina Mughal	None	None	Iwona Zarych
								09/30/2025

FROM 50.00000ml of WP113836 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP114962	09/30/2025	10/01/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych
								09/30/2025

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

CHEMICAL RECEIPT LOG BOOK

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	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

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 #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, 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 #
EPA	/ ICV-CN	ICV6-400	12/31/2025	01/08/2025 / lwona	02/20/2020 / lwona	W3012

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 / lwona	04/03/2023 / lwona	W3019

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 / lwona	07/03/2024 / lwona	W3112

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

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	WXBFB3271V	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.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1505H73	11/30/2025	05/21/2025 / Iwona	05/21/2025 / Iwona	W3214

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

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside 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:

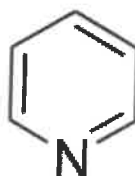
C₅H₅N

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

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.





R: 02/20/20
53

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

For ICP-MS use: dilute the ICV1 concentrate 50-fold with 1% (v/v) nitric acid; pipet 2 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415

For the cold vapor analysis of mercury by AA: dilute the ICV5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400

For the analysis of cyanide: dilute the ICV6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2520	504
Sb	1010	202
As	997	199
Ba	518	104
Be	514	103
Cd	514	103
Ca	10000	2000
Cr	517	103
Co	521	104
Cu	505	101
Fe	10100	2020
Pb	1030	206
Mg	5990	1198
Mn	524	105
Ni	525	105
K	9940	1988
Se	1030	206
Ag	252	50
Na	10100	2020
Tl	1040	208
V	504	101
Zn	1010	202

ICV5-0415		ICV6-0400	
Element	Concentration (µg/L) (after 100-fold dilution)	Analyte	Concentration (µg/L) (after 100-fold dilution)
Hg	4.0	CN ⁻	99

W3011
W3012
W3013
W3014
W3015

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

avantor™



M 6041-4b
MS

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 ₂ SO 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 SO ₂)	≤ 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

 **avantorsm**

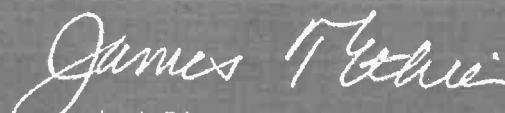


Material No.: 9673-33
Batch No.: 23D2462010

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


Jamie Ethier
Vice President Global Quality

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

 **avantor™**



M6151

R → 11/15/25

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

 **avantorsm**



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



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

Test	Specification	Result
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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

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

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 ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$)	98.0 – 102.0 %	99.5
pH of 5% Solution at 25°C	4.1 – 4.5	4.3
Insoluble Matter	$\leq 0.01 \%$	< 0.01
Chloride (Cl)	$\leq 5 \text{ ppm}$	< 5
ACS – Sulfate (SO_4)	$\leq 0.003 \%$	< 0.003
Calcium (Ca)	$\leq 0.005 \%$	< 0.005
Potassium (K)	$\leq 0.01 \%$	< 0.01
Heavy Metals (as Pb)	$\leq 0.001 \%$	< 0.001
Trace Impurities – Iron (Fe)	$\leq 0.001 \%$	< 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



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:

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

Storage: Room Temperature

Pellets

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.



Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

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

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

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.

W3139 Received on 9/9/24 by IZ

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

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

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Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Chem-Impex International, Inc.

Tel: (630) 766-2112**E-mail:** sales@chemimpex.com**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

Fax: (630) 766-2218**Web site:** www.chemimpex.com**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•6H₂O

CAS Number	7791-18-6
Molecular Formula	MgCl ₂ •6H ₂ O
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

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

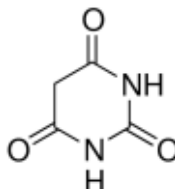
Bala Kumar
Quality Control Manager

Certificate of Analysis

Product Name:

Barbituric acid - ReagentPlus®, 99%

Product Number: 185698
Batch Number: WXBFB3271V
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 %)	≥ 98 %	100 %
VPCT		



Kang Chen
Quality Manager
Wuxi, China CN

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

Lot Number: 1505H73

Product Number: 2543

Manufacture Date: MAY 08, 2025

Expiration Date: NOV 2025

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.

Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent (from 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)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

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



Ernest Mahan (05/08/2025)
Plant Manager

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



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 org	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
20250703 15:30:45ahoffman-0-0

ISO9001:2015 Registration #0306-01



PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 9/30/2025

OVENTEMP IN Celsius(°C): 104
Time IN: 16:30
In Date: 09/29/2025
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: 09/30/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137353

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
Q3238-01	RCA	1	1.00	1.00	2.00	2.00	100.0	concreate sample
Q3239-01	92325	2	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3240-01	OK-02-092925	3	1.13	10.20	11.33	10.9	95.8	
Q3240-02	OK-02-092925-E2	4	1.15	10.03	11.18	10.66	94.8	
Q3242-01	92325	5	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3243-01	91825AB	6	1.00	1.00	2.00	2.00	100.0	WOOD
Q3244-01	80625	7	1.00	1.00	2.00	2.00	100.0	OIL
Q3245-01	13-1	8	1.16	9.94	11.1	10.49	93.9	
Q3245-02	13-1	9	1.15	10.43	11.58	10.9	93.5	
Q3245-03	13-1-EPH-A	10	1.12	10.06	11.18	10.21	90.4	
Q3245-04	13-1-EPH-B	11	1.14	10.89	12.03	11.29	93.2	
Q3245-05	13-1-EPH-C	12	1.12	10.16	11.28	10.7	94.3	
Q3245-06	13-1-EPH-D	13	1.11	11.15	12.26	11.5	93.2	
Q3245-07	13-1-EPH-E	14	1.14	10.78	11.92	11.12	92.6	
Q3245-09	12-8	15	1.15	10.54	11.69	10.87	92.2	
Q3245-10	12-8	16	1.15	10.59	11.74	10.96	92.6	
Q3245-11	12-8-EPH-A	17	1.12	10.14	11.26	10.19	89.4	
Q3245-12	12-8-EPH-B	18	1.14	10.38	11.52	10.9	94.0	
Q3245-13	12-8-EPH-C	19	1.15	10.11	11.26	10.44	91.9	
Q3245-14	12-8-EPH-D	20	1.13	10.59	11.72	10.96	92.8	
Q3245-15	12-8-EPH-E	21	1.14	10.73	11.87	11.12	93.0	
Q3245-17	12-1	22	1.13	10.53	11.66	10.58	89.7	
Q3245-18	12-1	23	1.14	10.67	11.81	10.8	90.5	
Q3245-19	12-1-EPH-A	24	1.11	10.03	11.14	10.33	91.9	
Q3245-20	12-1-EPH-B	25	1.13	10.31	11.44	10.36	89.5	
Q3245-21	12-1-EPH-C	26	1.14	10.05	11.19	10.28	90.9	
Q3245-22	12-1-EPH-D	27	1.13	9.97	11.1	10.09	89.9	
Q3245-23	12-1-EPH-E	28	1.15	10.67	11.82	10.8	90.4	

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

WORKLIST(Hardcopy Internal Chain)

LB 137353

WorkList Name : % SOLID -092925 WorkList ID : 192155 Department : Wet-Chemistry Date : 09-29-2025 15:47:58

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3238-01	RCA	Solid	Percent Solids	Cool 4 deg C	YANN01	D31	09/18/2025	Chemtech -SO
Q3239-01	92325	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3240-01	OK-02-092925	Solid	Percent Solids	Cool 4 deg C	PSEG05	D21	09/29/2025	Chemtech -SO
Q3240-02	OK-02-092925-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D21	09/29/2025	Chemtech -SO
Q3242-01	92325	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3243-01	91825AB	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3244-01	80625	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-01	13-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-02	13-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-03	13-1-EPH-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-04	13-1-EPH-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-05	13-1-EPH-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-06	13-1-EPH-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-07	13-1-EPH-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-09	12-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-10	12-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-11	12-8-EPH-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-12	12-8-EPH-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-13	12-8-EPH-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-14	12-8-EPH-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-15	12-8-EPH-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO

Date/Time 09/29/25 16:00
 Raw Sample Received by: 12CWC
 Raw Sample Relinquished by: 12CWC

WORKLIST(Hardcopy Internal Chain)

WorkList Name : % SOLID -092925
 WorkList ID : 192155
 Department : Wet-Chemistry
 Date : 09-29-2025 15:47:58

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3245-17	12-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-18	12-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-19	12-1-EPH-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-20	12-1-EPH-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-21	12-1-EPH-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-22	12-1-EPH-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO
Q3245-23	12-1-EPH-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/29/2025	Chemtech -SO

Date/Time 09/29/25 16:00
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 09/29/25 16:45
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]



SHIPPING DOCUMENTS

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3238	YANN01	Order Date : 9/29/2025 1:34:00 PM	Project Mgr :
Client Name : Yannuzzi Group, Inc.		Project Name : Edison Yard	Report Type : Results+QC
Client Contact : Alyssa Yannuzzi		Receive DateTime : 9/29/2025 12:10:00 PM	EDD Type : EXCEL NJCLEANUP
Invoice Name : Yannuzzi Group, Inc.		Purchase Order :	Hard Copy Date :
Invoice Contact : Alyssa Yannuzzi			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3238-01	RCA	Solid	09/18/2025	10:31	VOC-TCLVOA-10	TCL+30/TAL	8260D		10 Bus. Days

Relinquished By :

Date / Time :

9/29/25 14:05

Received By :

Date / Time :

09/29/25

Storage Area : VOA Refridgerator Room

14:00