

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:	Q3606	OrderDate:	11/11/2025 1:56:00 PM
Client:	ALS Environmental	Project:	ALS Middletown
Contact:	Jessica Smith	Location:	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3606-01	DELUMPER FEED	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 13:20	
Q3606-01DL	DELUMPER FEEDDL	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 14:05	
Q3606-05	MRS/NRS	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 13:20	
Q3606-05DL	MRS/NRSDL	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 14:05	
Q3606-06	MIX	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 13:20	
Q3606-06DL	MIXDL	SOIL			10/31/25 23:59			11/11/25
			Ammonia	SM4500-NH3		11/17/25	11/17/25 14:05	



SAMPLE DATA

Report of Analysis

Client:	ALS Environmental	Date Collected:	10/31/25 23:59
Project:	ALS Middletown	Date Received:	11/11/25
Client Sample ID:	DELUMPER FEED	SDG No.:	Q3606
Lab Sample ID:	Q3606-01	Matrix:	SOIL
		% Solid:	17.6

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	7580	OR	1	12.4	28.1	mg/Kg	11/17/25 10:10	11/17/25 13:20	SM 4500-NH3 B plus G-21

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

Report of Analysis

Client:	ALS Environmental	Date Collected:	10/31/25 23:59
Project:	ALS Middletown	Date Received:	11/11/25
Client Sample ID:	DELUMPER FEEDDL	SDG No.:	Q3606
Lab Sample ID:	Q3606-01DL	Matrix:	SOIL
		% Solid:	17.6

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	8210	D	50	619	1410	mg/Kg	11/17/25 10:10	11/17/25 14:05	SM 4500-NH3 B plus G-21

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

Report of Analysis

Client:	ALS Environmental	Date Collected:	10/31/25 23:59
Project:	ALS Middletown	Date Received:	11/11/25
Client Sample ID:	MRS/NRS	SDG No.:	Q3606
Lab Sample ID:	Q3606-05	Matrix:	SOIL
		% Solid:	1.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	15500	OR	1	194	441	mg/Kg	11/17/25 10:10	11/17/25 13:20	SM 4500-NH3 B plus G-21

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

Report of Analysis

Client:	ALS Environmental	Date Collected:	10/31/25 23:59
Project:	ALS Middletown	Date Received:	11/11/25
Client Sample ID:	MRS/NRSDL	SDG No.:	Q3606
Lab Sample ID:	Q3606-05DL	Matrix:	SOIL
		% Solid:	1.1

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	14100	D	5	971	2210	mg/Kg	11/17/25 10:10	11/17/25 14:05	SM 4500-NH3 B plus G-21

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

Report of Analysis

Client: ALS Environmental
Project: ALS Middletown
Client Sample ID: MIX
Lab Sample ID: Q3606-06

Date Collected: 10/31/25 23:59
Date Received: 11/11/25
SDG No.: Q3606
Matrix: SOIL
% Solid: 2.7

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	12700	OR	1	80.7	183	mg/Kg	11/17/25 10:10	11/17/25 13:20	SM 4500-NH3 B plus G-21

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

Report of Analysis

Client: ALS Environmental
Project: ALS Middletown
Client Sample ID: MIXDL
Lab Sample ID: Q3606-06DL

Date Collected: 10/31/25 23:59
Date Received: 11/11/25
SDG No.: Q3606
Matrix: SOIL
% Solid: 2.7

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	12100	D	10	807	1830	mg/Kg	11/17/25 10:10	11/17/25 14:05	SM 4500-NH3 B plus G-21

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: ALS Environmental

SDG No.: Q3606

Project: ALS Middletown

RunNo.: LB137922

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1	1	100	90-110	11/17/2025
Sample ID: CCV1 Ammonia as N	mg/L	0.95	1	95	90-110	11/17/2025
Sample ID: CCV2 Ammonia as N	mg/L	0.95	1	95	90-110	11/17/2025
Sample ID: CCV3 Ammonia as N	mg/L	1	1	100	90-110	11/17/2025
Sample ID: CCV4 Ammonia as N	mg/L	0.97	1	97	90-110	11/17/2025

Initial and Continuing Calibration Blank Summary

Client: ALS Environmental

SDG No.: Q3606

Project: ALS Middletown

RunNo.: LB137922

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	11/17/2025

Preparation Blank Summary

Client: ALS Environmental

SDG No.: Q3606

Project: ALS Middletown

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	PB170569BL						
Ammonia as N	mg/Kg	< 2.5000	2.5000	U	2.2	5	11/17/2025

Matrix Spike Summary

Client:	ALS Environmental	SDG No.:	Q3606
Project:	ALS Middletown	Sample ID:	Q3614-01
Client ID:	COMP-1MS	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/Kg	75-125	57.5		3.20	J	58.4	1	93		11/17/2025

Matrix Spike Summary

Client:	ALS Environmental	SDG No.:	Q3606
Project:	ALS Middletown	Sample ID:	Q3614-01
Client ID:	COMP-1MSD	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/Kg	75-125	56.1		3.20	J	59.6	1	89		11/17/2025

Duplicate Sample Summary

Client:	ALS Environmental	SDG No.:	Q3606
Project:	ALS Middletown	Sample ID:	Q3614-01
Client ID:	COMP-1DUP	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/Kg	+/-20	3.20	J	2.60	U	1	200	*	11/17/2025

Duplicate Sample Summary

Client:	ALS Environmental	SDG No.:	Q3606
Project:	ALS Middletown	Sample ID:	Q3614-01
Client ID:	COMP-1MSD	Percent Solids for Spike Sample:	82.3

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/Kg	+/-20	57.5		56.1		1	2		11/17/2025

Laboratory Control Sample Summary

Client: ALS Environmental

SDG No.: Q3606

Project: ALS Middletown

Run No.: LB137922

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170569BS							
Ammonia as N	mg/Kg	50	50.3		101	1	90-110	11/17/2025



RAW DATA

LB137

Test results Aquakem 7.2AQ1 Page:

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

11/17/2025 15:14

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.004	0.0	0.203	
ICB1	0.014	0.0	0.017	
CCV1	0.954	0.0	0.194	
CCB1	0.015	0.0	0.017	
RL CHECK	0.101	0.0	0.033	
PB170582BL	0.015	0.0	0.017	
PB170582BS	0.995	0.0	0.201	
Q3530-09	0.090	0.0	0.031	
Q3616-05	2.930	0.0	0.566	
Q3630-01	0.730	0.0	0.151	Test limit high
Q3630-01DUP	0.713	0.0	0.148	
Q3630-01MS	1.669	0.0	0.328	
Q3630-01MSD	1.671	0.0	0.329	
Q3630-03	0.182	0.0	0.048	
CCV2	0.951	0.0	0.193	
CCB2	0.020	0.0	0.018	
Q3630-05	0.425	0.0	0.094	
PB170569BL	0.017	0.0	0.017	
PB170569BS	1.006	0.0	0.203	
Q3606-01	26.958	0.0	5.090	Init abs., Test limit hig
Q3606-05	3.521	0.0	0.677	Test limit high
Q3606-06	6.945	0.0	1.321	Test limit high
Q3614-02	0.016	0.0	0.017	
Q3614-03	0.070	0.0	0.027	
CCV3	1.007	0.0	0.204	
CCB3	0.019	0.0	0.018	
Q3606-01DLX50	0.584	0.0	0.124	
Q3606-05DLX5	0.639	0.0	0.134	
Q3606-06DLX10	0.659	0.0	0.138	
Q3530-03	0.086	0.0	0.030	
Q3614-01	0.054	0.0	0.024	
Q3614-01DUP	0.037	0.0	0.021	
Q3614-01MS	0.985	0.0	0.199	
Q3614-01MSD	0.942	0.0	0.191	
Q3616-05DLX5	0.949	0.0	0.193	
CCV4	0.971	0.0	0.197	
CCB4	0.021	0.0	0.018	

101% (50-150) 11/17/2025 RM

N 37
Mean 1.567
SD 4.4806
CV% 286.01

Aquakem v. 7.2AQ1

Results from time period:

Mon Nov 17 11:17:22 2025

Mon Nov 17 15:13:27 2025

Sample Id	Sam/Ctr/c/	Test short name	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-N	P	0.0147	mg/l	11/17/2025 11:17:22	
0.1PPM	A	Ammonia-N	P	0.1059	mg/l	11/17/2025 11:17:23	
0.2PPM	A	Ammonia-N	P	0.1982	mg/l	11/17/2025 11:17:24	
0.4PPM	A	Ammonia-N	P	0.3935	mg/l	11/17/2025 11:17:25	
1.0PPM	A	Ammonia-N	P	0.973	mg/l	11/17/2025 11:17:26	
1.3PPM	A	Ammonia-N	P	1.3332	mg/l	11/17/2025 11:17:27	
2.0PPM	A	Ammonia-N	P	2.0148	mg/l	11/17/2025 11:17:28	
ICV1	S	Ammonia-N	P	1.0045	mg/l	11/17/2025 12:58:42	
ICB1	S	Ammonia-N	P	0.0139	mg/l	11/17/2025 12:58:43	
CCV1	S	Ammonia-N	P	0.9541	mg/l	11/17/2025 12:58:45	
CCB1	S	Ammonia-N	P	0.0146	mg/l	11/17/2025 12:58:48	
RL CHECK	S	Ammonia-N	P	0.1007	mg/l	11/17/2025 12:58:50	
PB170582BL	S	Ammonia-N	P	0.0151	mg/l	11/17/2025 13:09:26	
PB170582BS	S	Ammonia-N	P	0.9952	mg/l	11/17/2025 13:09:28	
Q3530-09	S	Ammonia-N	P	0.0905	mg/l	11/17/2025 13:09:30	
Q3616-05	S	Ammonia-N	P	2.9303	mg/l	11/17/2025 13:09:32	
Q3630-01	S	Ammonia-N	P	0.7301	mg/l	11/17/2025 13:09:33	
Q3630-01DUP	S	Ammonia-N	P	0.7127	mg/l	11/17/2025 13:09:34	
Q3630-01MS	S	Ammonia-N	P	1.6687	mg/l	11/17/2025 13:09:35	
Q3630-01MSD	S	Ammonia-N	P	1.671	mg/l	11/17/2025 13:09:36	
Q3630-03	S	Ammonia-N	P	0.1817	mg/l	11/17/2025 13:20:10	
CCV2	S	Ammonia-N	P	0.9512	mg/l	11/17/2025 13:20:12	
CCB2	S	Ammonia-N	P	0.0197	mg/l	11/17/2025 13:20:13	
Q3630-05	S	Ammonia-N	P	0.4247	mg/l	11/17/2025 13:20:14	
PB170569BL	S	Ammonia-N	P	0.0173	mg/l	11/17/2025 13:20:15	
PB170569BS	S	Ammonia-N	P	1.0057	mg/l	11/17/2025 13:20:16	
Q3606-01	S	Ammonia-N	P	26.9578	mg/l	11/17/2025 13:20:18	
Q3606-05	S	Ammonia-N	P	3.5205	mg/l	11/17/2025 13:20:19	
Q3606-06	S	Ammonia-N	P	6.9445	mg/l	11/17/2025 13:20:20	
Q3614-02	S	Ammonia-N	P	0.016	mg/l	11/17/2025 13:30:59	
Q3614-03	S	Ammonia-N	P	0.0695	mg/l	11/17/2025 13:31:00	
CCV3	S	Ammonia-N	P	1.0069	mg/l	11/17/2025 13:36:21	
CCB3	S	Ammonia-N	P	0.0189	mg/l	11/17/2025 13:36:22	
Q3606-01DLX50	S	Ammonia-N	P	0.5839	mg/l	11/17/2025 14:05:12	
Q3606-05DLX5	S	Ammonia-N	P	0.6391	mg/l	11/17/2025 14:05:14	
Q3606-06DLX10	S	Ammonia-N	P	0.6591	mg/l	11/17/2025 14:05:16	
Q3530-03	S	Ammonia-N	P	0.086	mg/l	11/17/2025 14:34:43	
Q3614-01	S	Ammonia-N	P	0.0539	mg/l	11/17/2025 14:34:45	
Q3614-01DUP	S	Ammonia-N	P	0.0371	mg/l	11/17/2025 14:34:48	
Q3614-01MS	S	Ammonia-N	P	0.9849	mg/l	11/17/2025 14:34:52	
Q3614-01MSD	S	Ammonia-N	P	0.9418	mg/l	11/17/2025 14:45:29	
Q3616-05DLX5	S	Ammonia-N	P	0.9488	mg/l	11/17/2025 14:45:32	
CCV4	S	Ammonia-N	P	0.9712	mg/l	11/17/2025 14:45:35	
CCB4	S	Ammonia-N	P	0.021	mg/l	11/17/2025 14:50:19	

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Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

11/17/2025 11:39 Reviewed by : RM Instrument ID : Konelab

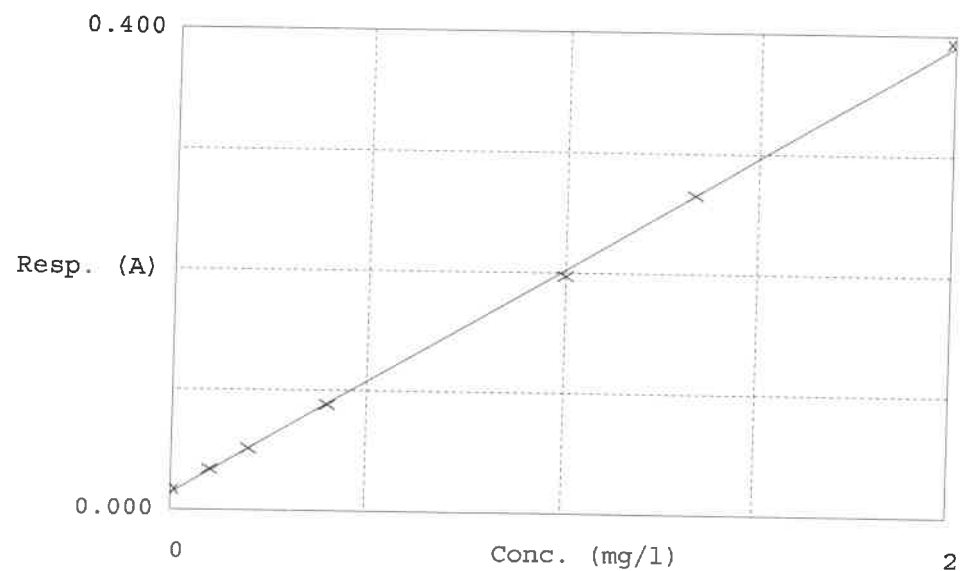
Test Ammonia-N

Accepted 11/17/2025 11:39

Factor 5.311
Bias 0.014

Coeff. of det. 0.999631

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.017	0.0147	0.0000	
2	NH3-2PPM	0.034	0.1059	0.1000	5.9
3	NH3-2PPM	0.051	0.1982	0.2000	-0.9
4	NH3-2PPM	0.088	0.3935	0.4000	-1.6
5	NH3-2PPM	0.197	0.9730	1.0000	-2.7
6	NH3-2PPM	0.265	1.3332	1.3333	2.6
7	NH3-2PPM	0.393	2.0148	2.0000	0.7

11/17/2025
RM

SOP ID : MSM4500-NH3 B,G-Ammonia-18

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : RM

Start Digest Date: 11/17/2025 Time : 10:10 Temp : 150 °C

End Digest Date: 11/17/2025 Time : 11:10 Temp : 160 °C

 11 batch 11/17/2025 11:40 150 °C RM
 11/17/2025 12:40 160 °C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature: RM

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP115589
MS/MSD SPIKE SOL.	1.0ML	WP115588
RL CHECK	N/A	AS PER PB170582
PBS003	50.0ML	W3112
MDL	0.8ML	WP115596

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP113886
NAOH 6N	0.5-2.0ML	WP113887
H2SO4 0.04N	5.0ML	WP115336
pH strip-Ammonia	N/A	W3133
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

 ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
 WP114104,

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/17/2025 12:50	RM CWC	RM CWC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170569BL	PBS569	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB170569BS	LCS569	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3530-03	MDL-SOIL-03-QT4-2025	1.00	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-01	DELUMPER FEED	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-05	MRS/NRS	1.03	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3606-06	MIX	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01DUP	COMP-1DUP	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01MS	COMP-1MS	1.04	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01MSD	COMP-1MSD	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-01	COMP-1	1.02	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-02	COMP-2	1.01	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3614-03	COMP-3	1.03	50	N/A	N/A	N/A	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By	Review On
Supervise By	Supervise On
SubDirectory	LB137922
Test	Ammonia
STD. NAME	STD REF.#
ICAL Standard	WP115693
ICV Standard	WP115695
CCV Standard	WP115694
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP115589
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	11/17/25 11:17		rubina	OK
2	0.1PPM	0.1PPM	CAL2	11/17/25 11:17		rubina	OK
3	0.2PPM	0.2PPM	CAL3	11/17/25 11:17		rubina	OK
4	0.4PPM	0.4PPM	CAL4	11/17/25 11:17		rubina	OK
5	1.0PPM	1.0PPM	CAL5	11/17/25 11:17		rubina	OK
6	1.3PPM	1.3PPM	CAL6	11/17/25 11:17		rubina	OK
7	2.0PPM	2.0PPM	CAL7	11/17/25 11:17		rubina	OK
8	ICV1	ICV1	ICV	11/17/25 12:58		rubina	OK
9	ICB1	ICB1	ICB	11/17/25 12:58		rubina	OK
10	CCV1	CCV1	CCV	11/17/25 12:58		rubina	OK
11	CCB1	CCB1	CCB	11/17/25 12:58		rubina	OK
12	RL	RL	LOQ	11/17/25 12:58		rubina	OK
13	PB170582BL	PB170582BL	MB	11/17/25 13:09		rubina	OK
14	PB170582BS	PB170582BS	LCS	11/17/25 13:09		rubina	OK
15	Q3530-09	MDL-WATER-03-QT4	SAM	11/17/25 13:09		rubina	OK
16	Q3616-05	Composite	SAM	11/17/25 13:09	NH3 is high, need dilution	rubina	Dilution
17	Q3630-01	DSN002	SAM	11/17/25 13:09		rubina	OK
18	Q3630-01DUP	DSN002DUP	DUP	11/17/25 13:09		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By	Review On
Supervise By	Supervise On
SubDirectory LB137922	Test Ammonia
STD. NAME	STD REF.#
ICAL Standard	WP115693
ICV Standard	WP115695
CCV Standard	WP115694
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP115589
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696

19	Q3630-01MS	DSN002MS	MS	11/17/25 13:09		rubina	OK
20	Q3630-01MSD	DSN002MSD	MSD	11/17/25 13:09		rubina	OK
21	Q3630-03	DSN001	SAM	11/17/25 13:20		rubina	OK
22	CCV2	CCV2	CCV	11/17/25 13:20		rubina	OK
23	CCB2	CCB2	CCB	11/17/25 13:20		rubina	OK
24	Q3630-05	DSN003	SAM	11/17/25 13:20		rubina	OK
25	PB170569BL	PB170569BL	MB	11/17/25 13:20		rubina	OK
26	PB170569BS	PB170569BS	LCS	11/17/25 13:20		rubina	OK
27	Q3606-01	DELUMPER FEED	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
28	Q3606-05	MRS/NRS	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
29	Q3606-06	MIX	SAM	11/17/25 13:20	NH3 is high, need dilution.	rubina	Dilution
30	Q3614-02	COMP-2	SAM	11/17/25 13:30		rubina	OK
31	Q3614-03	COMP-3	SAM	11/17/25 13:31		rubina	OK
32	CCV3	CCV3	CCV	11/17/25 13:36		rubina	OK
33	CCB3	CCB3	CCB	11/17/25 13:36		rubina	OK
34	Q3606-01DL	DELUMPER FEEDDL	SAM	11/17/25 14:05	50X For NH3	rubina	Confirms
35	Q3606-05DL	MRS/NRSDL	SAM	11/17/25 14:05	5X For NH3	rubina	Confirms
36	Q3606-06DL	MIXDL	SAM	11/17/25 14:05	10X For NH3	rubina	Confirms
37	Q3530-03	MDL-SOIL-03-QT4-20	SAM	11/17/25 14:34		rubina	OK
38	Q3614-01	COMP-1	SAM	11/17/25 14:34		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137922

Review By		Review On	
Supervise By		Supervise On	
SubDirectory	LB137922	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115693		
ICV Standard	WP115695		
CCV Standard	WP115694		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115290,WP114133,WP113929,WP114132,WP115696		

39	Q3614-01DUP	COMP-1DUP	DUP	11/17/25 14:34		rubina	OK
40	Q3614-01MS	COMP-1MS	MS	11/17/25 14:34		rubina	OK
41	Q3614-01MSD	COMP-1MSD	MSD	11/17/25 14:45		rubina	OK
42	Q3616-05DL	Composite DL	SAM	11/17/25 14:45	5X For NH3	rubina	Confirms
43	CCV4	CCV4	CCV	11/17/25 14:45		rubina	OK
44	CCB4	CCB4	CCB	11/17/25 14:50		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3606
Test : Ammonia,Percent Solids
Prepbatch ID : PB170565,PB170569,
Sequence ID/Qc Batch ID: LB137922,

Standard ID :
WP113885,WP113886,WP113887,WP113929,WP114132,WP114133,WP115085,WP115086,WP115290,WP115336,WP115588,WP115589,WP115596,WP115693,WP115694,WP115695,WP115696,

Chemical ID :
AS PER PB170582,M6186,W2663,W2666,W3112,W3113,W3132,W3133,W3155,W3195,W3196,W3201,W3222,



<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>
1796	NaOH, 0.1N	WP113885	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 4.00000gram of W3113 + 996.00000ml 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>
1494	BORATE BUFFER	WP113886	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025
FROM 0.90250L of W3112 + 9.50000gram of W3201 + 88.00000ml of WP113885 = Final Quantity: 1.000 L								



<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>
1471	NaOH Solution, 6N	WP113887	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 240.00000gram of W3113 + 760.00000ml 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>
290	Phenol reagent for Ammonia	WP113929	07/14/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/15/2025
<u>FROM</u> 3.20000gram of W3113 + 8.30000gram of W2663 + 88.80000ml of W3112 = Final Quantity: 100.000 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>
635	EDTA BUFFER FOR AMMONIA	WP114132	07/31/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych
07/31/2025								
FROM 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml 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>
289	Sodium Hypochlorite for Ammonia	WP114133	07/31/2025	12/31/2025	Rubina Mughal	None	None	Iwona Zarych
08/04/2025								
FROM 50.00000ml of W3112 + 50.00000ml of W3222 = Final Quantity: 100.000 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>
153	Ammonia Stock Std. (1000 ppm)	WP115085	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u> 3.81900gram of W3196 + 996.18100ml 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>
1895	Ammonia Stock Std, 1000PPM-SS	WP115086	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u>	3.81900gram of W3195 + 996.18100ml 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>
740	sodium nitroferricyanide for ammonia	WP115290	10/22/2025	11/22/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2025
<u>FROM</u>	0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 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>
1597	0.04 N H2SO4	WP115336	10/27/2025	04/27/2026	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 10/27/2025
FROM 1.00000ml of M6186 + 999.00000ml 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>
1322	Ammonia Intermediate Std, 50PPM	WP115588	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Jignesh Parikh
<u>FROM</u>		95.00000ml of W3112 + 5.00000ml of WP115085 = Final Quantity: 100.000 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>
1639	Ammonia Intermediate Std-Second source, 50PPM	WP115589	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 11/11/2025
<u>FROM</u>	95.00000ml of W3112 + 5.00000ml of WP115086 = Final Quantity: 100.000 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>
3590	TKN LOD-MDL 0.25PPM	WP115596	11/11/2025	11/18/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 11/11/2025
<u>FROM</u> 99.50000ml of W3112 + 0.50000ml of WP115588 = Final Quantity: 100.000 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>
275	Ammonia Calibration Std. (2 ppm)	WP115693	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/17/2025
<u>FROM</u> 48.00000ml of W3112 + 2.00000ml of WP115588 = 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>
285	Ammonia CCV Std. (1 ppm)	WP115694	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/17/2025
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP115588 = 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>
286	Ammonia ICV Std. (1 ppm)	WP115695	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/17/2025
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP115589 = 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>
3906	Ammonia MDL-LOD-LOQ spiking solution -5ppm	WP115696	11/17/2025	11/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/17/2025
<u>FROM</u> 45.00000ml of W3112 + 5.00000ml of WP115588 = Final Quantity: 50.000 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	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 #
PCI Scientific Supply, Inc.	P1060-10 / PHENOL, ACS, 500G	2HD0179	01/27/2030	01/27/2020 / apatel	01/27/2020 / apatel	W2663

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	87683 / Sodium Nitroferricyanide 250g	W12F013	02/10/2030	02/10/2020 / apatel	02/10/2020 / apatel	W2666

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

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 / lwona	07/08/2024 / lwona	W3113

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC05050-1 / EDTA, disodium salt, dihydrate 1 lb	2ND0156	07/10/2026	07/26/2024 / lwona	07/26/2024 / lwona	W3132

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140476 / Test Paper,PH Short Range 9.0/10.0	L23	08/22/2029	08/22/2024 / lwona	08/22/2024 / lwona	W3133

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,P K100,CS12	14-860	12/02/2029	12/02/2024 / lwona	12/02/2024 / lwona	W3155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	24L0356561	08/31/2027	03/19/2025 / lwona	03/19/2025 / lwona	W3195

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	MKCV1009	09/30/2026	03/19/2025 / lwona	03/19/2025 / lwona	W3196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	BCCL9613	05/31/2029	04/16/2025 / lwona	04/16/2025 / lwona	W3201

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	2506M51	12/31/2025	07/02/2025 / lwona	07/02/2025 / lwona	W3222



Certificate Of Analysis

Item Number	P1060	Lot Number	2HD0179
Item	Phenol, Loose Crystal, Reagent, ACS		
CAS Number	108-95-2		
Molecular Formula	C ₆ H ₆ O	Molecular Weight	94.11

Test	Specification		Result
	min	max	
ASSAY (C ₆ H ₅ OH)	99.0 %		100.02 %
FREEZING POINT (DRY)	40.5 C		40.5°C
CLARITY OF SOLUTION	TO PASS TEST		PASSES TEST
RESIDUE AFTER EVAPORATION		0.05 %	<0.05 %
WATER		0.5 %	0.0087 %
DATE OF MANUFACTURE			06-MAR-2018

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



Certificate Of Analysis Results Certified by

Ibad Tirmizi
Director of Quality
Spectrum Chemical Mfg. Corp.

All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.

W2666 Recived on 02/10/2020 by AP

Product No.: 87683

Product: Sodium pentacyanonitrosylferrate(III) dihydrate, ACS, 99.0-102.0%

Lot No.: W12F013

Test	Limits	Results
Assay	99.0 - 102.0 %	99.67 %
Insoluble	0.01 % max	0.0079 %
Chloride	0.02 % max	Not detected
Sulfate	To pass test	Passes test
Aqueous solubility	To pass test	Passes test
Limit on Ferricyanide	To pass test	Passes test
Limit on Ferrocyanide	To pass test	Passes test

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

avantor™



M6186

Recieve Date :- 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 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



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

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



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.

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2H ₂ O	Molecular Weight	372.24

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (DRIED BASIS)	99.0	101.0 %	99.5 %
pH OF A 5% SOLUTION @ 25°C	4.0	6.0	4.6
LOSS ON DRYING	8.7	11.4 %	8.90 %
CALCIUM (Ca)	NO PRECIPITATE IS FORMED		NO PRECIPITATE IS FORMED
ELEMENTAL IMPURITIES:			.
NICKEL (Ni)	AS REPORTED		<0.3 ppm
CHROMIUM (Cr)	AS REPORTED		<0.3 ppm
NITRILOTRIACETIC ACID[n[(HOCOCH ₂) ₃ N]		0.1 %	<0.10 %
IDENTIFICATION A	MATCHES REFERENCE		MATCHES REFERENCE
IDENTIFICATION B	RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION		RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION
IDENTIFICATION C	MEETS THE REQUIREMENTS FOR SODIUM		MEETS THE REQUIREMENTS FOR SODIUM
CERTIFIED HALAL			CERTIFIED HALAL
EXPIRATION DATE			10-JUL-2026
DATE OF MANUFACTURE			11-JUL-2023
APPEARANCE			WHITE CRYSTALLINE POWDER
RESIDUAL SOLVENTS		AS REPORTED	NO RESIDUAL SOLVENTS PRESENT
MONOGRAPH EDITION			USP 2024

Certificate of Analysis Results Entered By:

CACEVEDO
Charmian Acevedo
22-MAY-24 08:12:30

Certificate of Analysis Results Approved By:

GHERRERA
Genaro Herrera
22-MAY-24 12:32:01

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.

The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

Certificate of Analysis



Material	BDH9208-500G
Material Description	BDH AMMONIUM CHLORIDE ACS 500G
Grade	U S P REAGENT (ACS GRADE)
Batch	24L0356561
Reassay Date	08/31/2027
CAS Number	12125-02-9
Molecular Formula	NH ₄ Cl
Molecular Mass	53.49
Date of Manufacture	08/01/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White granular powder	White granular powder
Calcium	<= 0.001 %	0.001 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0002 %
Insolubles	<= 0.005 %	0.001 %
Iron	<= 0.0002 %	<0.0002 %
Magnesium	<= 0.0005 %	0.0001 %
pH (5%, Water) @25C	4.5 - 5.5	4.8
Phosphate	<= 0.0002 %	<0.0002 %
Purity	>= 99.5 %	99.8 %
Residue on Ignition	<= 0.01 %	0.003 %
Sulfate	<= 0.002 %	<0.002 %
Extra Description:	Meets Reagent Specifications for testing USP/NF monographs	

Internal ID #: 710

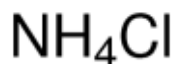
Signature	Additional Information
<p>We certify that this batch conforms to the specifications listed above.</p> <p>This document has been electronically produced and is valid without a signature.</p> <p>Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA</p>	<p>Analysis may have been rounded to significant digits in specification limits</p> <p>Product meets analytical specifications of the grades listed.</p>

W3196 Received on 03/19/2025 by IZ

Certificate of Analysis

Product Name:

Ammonium chloride - ACS reagent, ≥99.5%



Product Number: 213330
Batch Number: MKCV1009
Brand: SIGALD
CAS Number: 12125-02-9
MDL Number: MFCD00011420
Formula: H4CIN
Formula Weight: 53.49 g/mol
Quality Release Date: 23 OCT 2023
Recommended Retest Date: SEP 2026

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals or Chunk(s)	Crystals
Titration by AgNO ₃	≥ 99.5 %	100.2 %
pH	4.5 - 5.5	4.9
@ 25 Deg c (5% Solution)		
Insoluble Matter	≤ 0.005 %	0.001 %
10%, H ₂ O		
Residue on ignition (Ash)	≤ 0.01 %	< 0.01 %
Calcium (Ca)	≤ 0.001 %	< 0.001 %
Magnesium (Mg)	≤ 5 ppm	1 ppm
Heavy Metals	≤ 5 ppm	< 1 ppm
by ICP		
Iron (Fe)	≤ 2 ppm	< 1 ppm
Phosphate (PO ₄)	≤ 2 ppm	< 2 ppm
Sulfate (SO ₄)	≤ 0.002 %	< 0.002 %
Meets ACS Requirements	Current ACS Specification	Conforms
Recommended Retest Period	-----	-----
3 Years		



Larry Coers, Director

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

Product Number: 213330
Batch Number: MKCV1009

Quality Control
Milwaukee, 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.



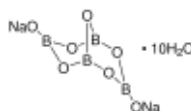
W3201 Received on 4/16/25 by IZ

Certificate of Analysis

Product Name:

Sodium tetraborate decahydrate - ACS reagent, ≥99.5%

Product Number: S9640
Batch Number: BCCL9613
Brand: SIGALD
CAS Number: 1303-96-4
Formula: B₄Na₂O₇ · 10H₂O
Formula Weight: 381,37 g/mol
Quality Release Date: 05 JUL 2024
Recommended Retest Date: MAY 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Powder
Titration with NaOH	99.5 - 105.0 %	100.7 %
pH	9.15 - 9.20	9.20
0.01 m Solution at 25 Deg C		
Meets ACS Requirements	Corresponds to Requirements	Corresponds
ACS Specifications	Corresponds to Requirements	Corresponds
Insoluble Matter ≤ 0.005% / Heavy		
Metals (As Pb) ≤ 0.001%		
Calcium (Ca)	≤ 50 mg/kg	< 50 mg/kg
Iron (Fe)	≤ 5 mg/kg	< 5 mg/kg
Total Sulfur	≤ 50 mg/kg	< 50 mg/kg
as SO ₄ (ICP)		
Chloride (Cl)	≤ 10 mg/kg	< 10 mg/kg
Phosphate (PO ₄)	≤ 10 mg/kg	< 10 mg/kg

Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland CH

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

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2506M51**Product Number:** 7495.5**Manufacture Date:** JUN 18, 2025**Expiration Date:** DEC 2025

This solution is subject to slow decomposition upon exposure to air. Keep container tightly capped. Refrigeration may improve stability.
When used in the Phenate method for Ammonia, APHA recommends replacing this solution about every 2 months.

Name	CAS#	Grade
Water	7732-18-5	Commercial
Sodium Hypochlorite	7681-52-9	Commercial

Test	Specification	Result	NIST SRM#
Appearance	Colorless to greenish-yellow liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	4.75-5.25 % (w/w) Cl ₂	5.17 % (w/w) Cl ₂	136

Specification	Reference
Sodium Hypochlorite, 5%	APHA (4500-NH3 F)
Sodium Hypochlorite	ASTM (D 4785)

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)
7495.5-1	4 L black poly	6 months
7495.5-16	500 mL amber poly	6 months
7495.5-32	1 L amber poly	6 months

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

Jose Pena (06/18/2025)
Operations Manager

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



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/12/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 11/11/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:05
Out Date: 11/12/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137855

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
Q3604-01	S-1	1	1.15	10.36	11.51	9.73	82.8	
Q3604-02	S-2	2	1.13	10.26	11.39	9.62	82.7	
Q3606-01	DELUMPER FEED	3	1.14	11.46	12.6	3.16	17.6	

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

WORKLIST(Hardcopy Internal Chain)

137855

WorkList Name : %1-111125

WorkList ID : 193035

Department : Wet-Chemistry

Date : 11-11-2025 08:47:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3604-01	S-1	Solid	Percent Solids	Cool 4 deg C	ROMA02	D41	11/10/2025	Chemtech -SO
Q3604-02	S-2	Solid	Percent Solids	Cool 4 deg C	ROMA02	D41	11/10/2025	Chemtech -SO
Q3606-01	DELUMPER FEED	Solid	Percent Solids	Cool 4 deg C	ALSE01	D31	10/31/2025	Chemtech -SO

Date/Time 11-11-25 15:00

Raw Sample Received by: J. W. C.

Raw Sample Relinquished by: RS C (Est-Web)

Date/Time

11-11-25

Raw Sample Received by:

RS C (Est-Web)

Raw Sample Relinquished by:

J. W. C.



PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 11/17/2025

OVENTEMP IN Celsius(°C): 104
Time IN: 11:30
In Date: 11/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN-1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 11:35
Out Date: 11/17/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % solids-oven

QC:LB137911

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
Q3380-01	MRS/NRS	1	1.14	10.73	11.87	1.24	0.9	
Q3380-02	Delumper Feed	2	1.15	10.15	11.3	2.88	17.0	
Q3380-03	MIX	3	1.13	10.31	11.44	1.4	2.6	
Q3606-05	MRS/NRS	4	1.13	10.29	11.42	1.24	1.1	
Q3606-06	MIX	5	1.13	10.22	11.35	1.41	2.7	

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



SHIPPING DOCUMENTS



PURCHASE ORDER

FOR SUBCONTRACT ANALYSES

Date: 11/10/2025

Contact: **Jessica Smith**

E-Mail: MDT.Subcontract@alsglobal.com

Terms: Net 30

Bill To: ALS Environmental

301 Fulving Mill Road

Middletown PA 17057

Phone: 717-944-5541

Fax: 717-944-1430

[illegible]

Comments:

ALS Group USA, Corp

www.alsglobal.com

From: Yazmeen Gomez
Sent: Tuesday, November 11, 2025 3:12 PM
To: Jessica Smith
Subject: Ammonia samples
Attachments: SKM_C55825111114430.pdf





Good afternoon Jessica,

We received the attached samples today.

I just want to inform you – COC mentioned these are Solid samples – however, our lab determined two of these samples (Sample 01 and 03) need to be treated as a Liquid.

Best Regards,



Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com    

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