Alliance TECHNICAL GROUP

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

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

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LAB CHRONICLE

OrderID:	Q2309	**OrderDate:**	6/12/2025 2:34:00 PM
Client:	Holland Manufacturing Co.	**Project:**	Pre Treatment Plant 2025
Contact:	Todd Holland	**Location:**	D51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2309-01	**EFFLUENT**	**WATER**			**06/12/25 11:00**			**06/12/25**
			Ammonia	SM4500-NH3		06/13/25	06/13/25 15:03	
			BOD5	SM5210 B			06/12/25 16:30	
			Oil and Grease	1664A			06/13/25 09:30	
			Phosphorus-Ortho	SM4500-P E			06/13/25 12:37	
			Phosphorus-Total	365.3		06/13/25	06/13/25 13:29	
			TSS	SM2540 D			06/13/25 10:00	
Q2309-01DL	**EFFLUENTDL**	**WATER**			**06/12/25 11:00**			**06/12/25**
			Ammonia	SM4500-NH3		06/13/25	06/13/25 15:47	
Q2309-04	**AERATION**	**WATER**			**06/12/25 11:00**			**06/12/25**
			TSS	SM2540 D			06/13/25 10:00	
Q2309-05	**INFLUENT**	**WATER**			**06/12/25 11:00**			**06/12/25**
			Ammonia	SM4500-NH3		06/13/25	06/13/25 15:03	
			BOD5	SM5210 B			06/12/25 16:30	

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LAB CHRONICLE

Q2309-05DL	**INFLUENTDL**	**WATER**			**06/12/25 11:00**			**06/12/25**
			Ammonia	SM4500-NH3		06/13/25	06/13/25 15:47	

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SAMPLE DATA

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Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	06/12/25 11:00
Project:	Pre Treatment Plant 2025	Date Received:	06/12/25
Client Sample ID:	EFFLUENT	SDG No.:	Q2309
Lab Sample ID:	Q2309-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	424	OR	1	1.50	5.00	mg/L	06/13/25 10:10	06/13/25 15:03	SM 4500-NH3 B plus G-11
BOD5	4590		1	0.20	2.00	mg/L		06/12/25 16:30	SM 5210 B-16
Oil and Grease	22.1		1	0.29	5.00	mg/L		06/13/25 09:30	1664A
Orthophosphate as P	0.10		1	0.0040	0.050	mg/L		06/13/25 12:37	SM 4500-P E-11
Phosphorus, Total	0.14		1	0.0050	0.050	mg/L	06/13/25 09:45	06/13/25 13:29	365.3
TSS	2490		1	1.00	4.00	mg/L		06/13/25 10:00	SM 2540 D-15

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

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Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	06/12/25 11:00
Project:	Pre Treatment Plant 2025	Date Received:	06/12/25
Client Sample ID:	EFFLUENTDL	SDG No.:	Q2309
Lab Sample ID:	Q2309-01DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	419	D	10	15.0	50.0	mg/L	06/13/25 10:10	06/13/25 15:47	SM 4500-NH3 B plus G-11

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

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Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	06/12/25 11:00
Project:	Pre Treatment Plant 2025	Date Received:	06/12/25
Client Sample ID:	AERATION	SDG No.:	Q2309
Lab Sample ID:	Q2309-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	6360		1	1.00	4.00	mg/L		06/13/25 10:00	SM 2540 D-15

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

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Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	06/12/25 11:00
Project:	Pre Treatment Plant 2025	Date Received:	06/12/25
Client Sample ID:	INFLUENT	SDG No.:	Q2309
Lab Sample ID:	Q2309-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	309	OR	1	1.50	5.00	mg/L	06/13/25 10:10	06/13/25 15:03	SM 4500-NH3 B plus G-11
BOD5	14800		1	0.20	2.00	mg/L		06/12/25 16:30	SM 5210 B-16

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

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Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	06/12/25 11:00
Project:	Pre Treatment Plant 2025	Date Received:	06/12/25
Client Sample ID:	INFLUENTDL	SDG No.:	Q2309
Lab Sample ID:	Q2309-05DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	320	D	5	7.50	25.0	mg/L	06/13/25 10:10	06/13/25 15:47	SM 4500-NH3 B plus G-11

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **RunNo.:** LB136152

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Orthophosphate as P	mg/L	0.505	0.50	101	90-110	06/13/2025
Sample ID: CCV1						
Orthophosphate as P	mg/L	0.519	0.5	104	90-110	06/13/2025
Sample ID: CCV2						
Orthophosphate as P	mg/L	0.505	0.5	101	90-110	06/13/2025

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Initial and Continuing Calibration Verification

Client:	Holland Manufacturing Co.	**SDG No.:**	Q2309
Project:	Pre Treatment Plant 2025	**RunNo.:**	LB136153

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: **ICV**						
Phosphorus, Total	mg/L	0.494	0.50	99	90-110	06/13/2025
Sample ID: **CCV1**						
Phosphorus, Total	mg/L	0.514	0.50	103	90-110	06/13/2025
Sample ID: **CCV2**						
Phosphorus, Total	mg/L	0.496	0.50	99	90-110	06/13/2025
Sample ID: **CCV3**						
Phosphorus, Total	mg/L	0.502	0.50	100	90-110	06/13/2025

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Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **RunNo.:** LB136156

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Ammonia as N	mg/L	0.97	1	97	90-110	06/13/2025
Sample ID: CCV1						
Ammonia as N	mg/L	1	1	100	90-110	06/13/2025
Sample ID: CCV2						
Ammonia as N	mg/L	0.95	1	95	90-110	06/13/2025
Sample ID: CCV3						
Ammonia as N	mg/L	1	1	100	90-110	06/13/2025

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Initial and Continuing Calibration Verification

Client:	Holland Manufacturing Co.	**SDG No.:**	Q2309
Project:	Pre Treatment Plant 2025	**RunNo.:**	LB136156

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

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Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **RunNo.:** LB136152

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB							
Orthophosphate as P	mg/L	0.006	0.0250	J	0.0038	0.05	06/13/2025
Sample ID: CCB1							
Orthophosphate as P	mg/L	0.006	0.0250	J	0.0038	0.05	06/13/2025
Sample ID: CCB2							
Orthophosphate as P	mg/L	0.005	0.0250	J	0.0038	0.05	06/13/2025

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Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **RunNo.:** LB136153

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB							
Phosphorus, Total	mg/L	0.008	0.0250	J	0.0045	0.05	06/13/2025
Sample ID: CCB1							
Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	06/13/2025
Sample ID: CCB2							
Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	06/13/2025
Sample ID: CCB3							
Phosphorus, Total	mg/L	0.008	0.0250	J	0.0045	0.05	06/13/2025

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Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **RunNo.:** LB136156

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Ammonia as N	mg/L	0.03	0.0500	J	0.030	0.1	06/13/2025
Sample ID: CCB1							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	06/13/2025
Sample ID: CCB2							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	06/13/2025
Sample ID: CCB3							
Ammonia as N	mg/L	0.035	0.0500	J	0.030	0.1	06/13/2025

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Initial and Continuing Calibration Blank Summary

Client:	Holland Manufacturing Co.	**SDG No.:**	Q2309
Project:	Pre Treatment Plant 2025	**RunNo.:**	LB136156

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB136135BL							
BOD5	mg/L	< 0.2000	0.2000	U	0.20	2.0	06/12/2025
Sample ID: LB136143BL							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	06/13/2025
Sample ID: LB136145BL							
TSS	mg/L	1	2.0000	J	1	4	06/13/2025
Sample ID: LB136152BL							
Orthophosphate as P	mg/L	0.006	0.0250	J	0.004	0.05	06/13/2025
Sample ID: PB168427BL							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.03	0.1	06/13/2025
Sample ID: PB168478BL							
Phosphorus, Total	mg/L	0.007	0.0250	J	0.005	0.05	06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2276-01
Client ID: MH-6-10-2025MS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	810		803		20.0	1	35	*	06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2276-01
Client ID: MH-6-10-2025MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	803		803		20.0	1	4	*	06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2286-03
Client ID: LAW-25-0084MS
Percent Solids for Spike Sample: 0

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/L	75-125	3.00	OR	2.30	OR	1	1	70	*	06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2286-03
Client ID: LAW-25-0084MSD
Percent Solids for Spike Sample: 0

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/L	75-125	2.90	OR	2.30	OR	1	1	60	*	06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2289-01
Client ID: SP-1MS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Phosphorus, Total	mg/L	90-110	0.51		0.046	J	0.5	1	93		06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2289-01
Client ID: SP-1MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Phosphorus, Total	mg/L	90-110	0.51		0.046	J	0.5	1	92		06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Orthophosphate as P	mg/L	90-110	0.59		0.10		0.5	1	97		06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Orthophosphate as P	mg/L	90-110	0.59		0.10		0.5	1	96		06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	41.9		22.1		20.0	1	99		06/13/2025

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Matrix Spike Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	42.3		22.1		20.0	1	101		06/13/2025

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Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2276-01
Client ID: MH-6-10-2025MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	810		803		1	0.78		06/13/2025

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Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2286-03
Client ID: LAW-25-0084DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	2.30	OR	2.30	OR	1	0		06/13/2025
Ammonia as N	mg/L	+/-20	2.60	D	2.60	D	2	0		06/13/2025

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Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2286-03
Client ID: LAW-25-0084MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	3.00	OR	2.90	OR	1	3		06/13/2025

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Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2289-01
Client ID: SP-1DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Phosphorus, Total	mg/L	+/-20	0.046	J	0.046	J	1	0		06/13/2025

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Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2289-01
Client ID: SP-1MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Phosphorus, Total	**mg/L**	**+/-20**	**0.51**		**0.51**		**1**	**1.18**		**06/13/2025**

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

Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2293-01
Client ID: SW-3DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	235		235		1	0.34		06/13/2025

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

Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2300-02
Client ID: COMPDUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
BOD5	mg/L	+/-20	1940		1840		1	5.56		06/12/2025

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

Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTDUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Orthophosphate as P	mg/L	+/-20	0.10		0.10		1	1.94		06/13/2025

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

Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Orthophosphate as P	mg/L	+/-20	0.59		0.59		1	0.17		06/13/2025

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

Duplicate Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Sample ID: Q2309-01
Client ID: EFFLUENTMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	41.9		42.3		1	0.95		06/13/2025

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

Laboratory Control Sample Summary

Client:	Holland Manufacturing Co.	**SDG No.:**	Q2309
Project:	Pre Treatment Plant 2025	**Run No.:**	LB136135

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB136135BS								
BOD5	mg/L	198	213		107	1	84.6-115.4	06/12/2025

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

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Run No.: LB136143

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB136143BS								
Oil and Grease	mg/L	20.0	16.8		84	1	78-114	06/13/2025

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

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Run No.: LB136145

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB136145BS								
TSS	mg/L	550	532		97	1	90-110	06/13/2025

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

Laboratory Control Sample Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **Run No.:** LB136152

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB136152BS								
Orthophosphate as P	mg/L	0.5	0.50		99	1	90-110	06/13/2025

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

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.
SDG No.: Q2309
Project: Pre Treatment Plant 2025
Run No.: LB136156

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB168427BS								
Ammonia as N	mg/L	1	1.00		100	1	90-110	06/13/2025

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

Laboratory Control Sample Summary

Client: Holland Manufacturing Co. **SDG No.:** Q2309

Project: Pre Treatment Plant 2025 **Run No.:** LB136153

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB168478BS								
Phosphorus, Total	**mg/L**	**0.50**	**0.49**		**98**	**1**	**90-110**	**06/13/2025**

RAW DATA

Reviewed By:jignesh
On:6/17/2025 3:03:27 PM
Inst Id :DO METER
LB :LB136135

BOD5 LOG

ANALYST: Iwona
SUPERVISOR: jignesh

QC BATCH ID: LB136135
Analysis Date: 06/12/2025
BOD Water: WP113509
MANGANOUS SULFATE SOLUTION: W3103
Starch: W3149
Alkaline Iodide Azide: W3109
Sulfuric acid, 1N: WP112832
Sodium Thiosulfate, 0.025N: W3105
POLYSEED: WP113511
NaOH, 1N: WP111323
GGA: WP113510
IncubatorID: INCUBATOR #3
Chlorine Strips: W3155
GuageID: 0511064
pH Strips: W3215
Zero DO: WP113147

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading(ML)	Final Reading(ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	9.8	9.8	9.8
WINKLER 2	WINKLER 2	2	300	9.9	19.7	9.8	9.8

Meter Calibration1: 9.76 Zero DO Reading1: 0.15 mg/L (<=0.2 Criteria)

Barometric Pressure1: 760 mmHg DO Meter BOD fluid reading for winkler comparison: 9.96

After Incubation

Meter Calibration2: 9.64 Zero DO Reading2: 0.17 mg/L (<=0.2 Criteria)

Barometric Pressure2: 761 mmHg

Reviewed By:jignesh
On:6/17/2025 3:03:27 PM
Inst Id :DO METER
LB :LB136135

Alliance TECHNICAL GROUP

QC BATCH ID: LB136135

INCUBATOR TEMP IN(C): 20.1

INCUBATOR TEMP OUT(C): 19.7

TIME IN: 16:30

TIME OUT: 14:00

DATE IN: 06/12/2025

DATE OUT: 06/17/2025

Lab SampleID	Bottle No.	Check CL	Initial PH	Final PH	Temp °C	Sam Vol. (mL)	D.O.1 Initial	D.O.2 Final	Depletion	BOD Result (mg/L)	Avg Result (mg/L)	Comment
LB136135BL	1	No	6.57	N/A	20.90	300	9.98	9.94	0.04	0.04	0.04	
POLYSEED	1					10	9.85	5.75	4.1	0.82	0.78	
POLYSEED	2					15	9.81	3.45	6.36	0.85		
POLYSEED	3					20	9.79	3.03	6.76	0.68		
GGA	1					6	9.91	4.72	5.19	220.5	212.67	
GGA	2					6	9.91	4.92	4.99	210.5		
GGA	3					6	9.90	4.98	4.92	207		
Q2300-02	1	No	6.18	6.99	20.00	5	9.91	5.42	4.49	2226	1942.5	pH Adjuste
Q2300-02	2					10	9.83	3.52	6.31	1659		
Q2300-02	3					20	9.81	0.09	-	0		
Q2300-02	4					30	9.76	0.05	-	0		
Q2300-02DUP	1	No	6.18	6.99	20.00	5	9.92	5.68	4.24	2076	1837.5	pH Adjuste
Q2300-02DUP	2					10	9.85	3.74	6.11	1599		
Q2300-02DUP	3					20	9.80	0.09	-	0		
Q2300-02DUP	4					30	9.74	0.05	-	0		
Q2309-01	1	No	7.99	7.31	20.10	1	9.91	8.63	-	0	4587	pH Adjuste
Q2309-01	2					5	9.83	7.93	-	0		
Q2309-01	3					10	9.80	7.40	2.4	4860		
Q2309-01	4					50	9.78	1.81	7.97	4314		
Q2309-01	5					100	9.67	0.1	-	0		
Q2309-05	1	No	4.88	7.18	20.20	1	9.89	8.34	-	0	14790	pH Adjuste
Q2309-05	2					5	9.87	6.67	3.2	14520		
Q2309-05	3					10	9.81	4.01	5.8	15060		
Q2309-05	4					50	9.72	0.09	-	0		
Q2309-05	5					100	9.52	0.08	-	0		

NOTE: 2ml POLYSEED added to GGA and all the Samples, but not in Blank.

NOTE (For, CBOD5): 0.16 g Nitrification Inhibitor added to GGA and all the Samples, but not in Blank.

WORKLIST(Hardcopy Internal Chain)

(b136135

WorkList Name : BOD5-6-12 **WorkList ID :** 190164 **Department :** Wet-Chemistry **Date :** 06-12-2025 13:15:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2300-02	COMP	Water	BOD5	Cool 4 deg C	ARAM01	D41	06/11/2025	SM5210 B
Q2309-01	EFFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	D51	06/12/2025	SM5210 B
Q2309-05	INFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	D51	06/12/2025	SM5210 B

Date/Time 06/12/2025 13.40
Raw Sample Received by: RM (WC)
Raw Sample Relinquished by: JPC(DX)

Date/Time 06/12/2025 16:00
Raw Sample Received by: JPC(DX)
Raw Sample Relinquished by: RM (WC)

Reviewed By:jignesh
On:6/17/2025 3:03:27 PM
Inst Id :DO METER
LB :LB136135

Extraction and Analytical Summary Report

Analysis Method: 1664A
Test: Oil and Grease
Run Number: LB136143
Analysis Date: 06/13/2025
BalanceID: WC SC-6
OvenID: WC OVEN-1

ANALYST: jignesh
REVIEWED BY: Iwona
Extraction Date: 06/13/2025
Extration IN Time: 08:10
Extration OUT Time: 08:20
Thermometer ID: EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight(g)	Silica Gel Weight(g)	Weight After Drying(g)	Final Weight After Drying(g)	Change Weight (g)	Result in ppm
1	LB136143BL	LB136143BL	WATER	1.3	1000	100	3.0263	3.0263	0	3.0264	3.0264	0.0001	0.1
2	LB136143BS	LB136143BS	WATER	1.3	1000	100	3.1475	3.1475	0	3.1643	3.1643	0.0168	16.8
3	Q2276-01	MH-6-10-2025	WATER	1.6	1000	100	3.0005	3.0005	0	3.8030	3.8030	0.8025	802.5
4	Q2276-02	Q2276-01MS	WATER	1.6	1000	100	3.1856	3.1856	0	3.9951	3.9951	0.8095	809.5
5	Q2276-03	Q2276-01MSD	WATER	1.6	1000	100	2.7032	2.7032	0	3.5064	3.5064	0.8032	803.2
6	Q2309-01	EFFLUENT	WATER	1.6	1000	100	3.0565	3.0565	0	3.0786	3.0786	0.0221	22.1
7	Q2309-02	Q2309-01MS	WATER	1.6	1000	100	2.7132	2.7132	0	2.7551	2.7551	0.0419	41.9
8	Q2309-03	Q2309-01MSD	WATER	1.6	1000	100	2.6803	2.6803	0	2.7226	2.7226	0.0423	42.3

QC Batch# LB136143 **Test:** Oil and Grease **Analysis Date:** 06/13/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3204
pH Paper 0-14	M6069
Sodium Sulfate	EP2620
1:1 HCL	WP112782
Silica Gel	NA
Sand	NA

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP112783
LCSWD	NA	NA
MS/MSD	2.5 ML	WO112784

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0004 **(0.9950-1.0050)**
Bal Check Time: 08:15

In OVEN TEMP1 : 71 °C **Dessicator Time In1 :** 10:26
In Time1: 09:30
Out OVEN TEMP1: 71 °C **Dessicator Time Out1:** 11:00
Out Time1: 10:25

After Analysis

0.0020 gram Balance: 0.0019 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0005 **(0.9950-1.0050)**
Bal Check Time: 12:37

In OVEN TEMP2 : 70 °C **Dessicator Time In2 :** 12:01
In Time2: 11:30
Out OVEN TEMP2: 70 °C **Dessicator Time Out2:** 12:35
Out Time2: 12:00

WORKLIST(Hardcopy Internal Chain)

LB LB136143

WorkList Name : OIL & GREASE Q2289 **WorkList ID :** 190168 **Department :** Wet-Chemistry **Date :** 06-13-2025 07:47:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2276-01	MH-6-10-2025	Water	Oil and Grease	Conc H2SO4 to pH < 2	EURO03	D31	06/10/2025	1664A
Q2276-02	Q2276-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	EURO03	D31	06/10/2025	1664A
Q2276-03	Q2276-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	EURO03	D31	06/10/2025	1664A
Q2309-01	EFFLUENT	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	D51	06/12/2025	1664A
Q2309-02	Q2309-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	D51	06/12/2025	1664A
Q2309-03	Q2309-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	D51	06/12/2025	1664A

Date/Time 06/13/25 08:00

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 06/13/25 15:00

Raw Sample Received by:

Raw Sample Relinquished by:

Reviewed By:Iwona
On:6/18/2025 2:52:40 PM
Inst Id :WC SC-3
LB :LB136143

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona
ANALYST: jignesh
Date: 06/12/2025
Run Number: LB136145
BalanceID: WC SC-6
OvenID: WC OVEN-1
FilterID: 17416528
ThermometerID: WET OVEN#1

TEMP1 IN:	103 °C	06/12/2025 14:00	**TEMP1 OUT:**	104 °C	06/12/2025 15:00
TEMP2 IN:	103 °C	06/12/2025 15:30	**TEMP2 OUT:**	104 °C	06/12/2025 16:30
TEMP3 IN:	104 °C	06/13/2025 10:00	**TEMP3 OUT:**	103 °C	06/13/2025 11:30
TEMP4 IN:	103 °C	06/13/2025 12:00	**TEMP4 OUT:**	104 °C	06/13/2025 13:35

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB136145BL	LB136145BL	1.3523	1.3523	100	1.3524	1.3524	1.3524	0.0001	1
2	LB136145BS	LB136145BS	1.4931	1.4931	100	1.5463	1.5463	1.5463	0.0532	532
3	Q2276-01	MH-6-10-2025	1.4832	1.4832	100	1.7147	1.7147	1.7147	0.2315	2315
4	Q2286-03	LAW-25-0084	1.4881	1.4881	100	1.8323	1.8323	1.8323	0.3442	3442
5	Q2289-01	SP-1	1.4981	1.4981	50	1.5281	1.5281	1.5281	0.0300	600
6	Q2289-02	SP-2	1.4829	1.4829	100	1.5134	1.5134	1.5134	0.0305	305
7	Q2289-03	SP-3	1.4805	1.4805	50	1.5327	1.5327	1.5327	0.0522	1044
8	Q2290-01	Outfall 1	1.4777	1.4777	500	1.4955	1.4955	1.4955	0.0178	35.6
9	Q2290-02	Outfall 2	1.4759	1.4759	700	1.4917	1.4917	1.4917	0.0158	22.6
10	Q2291-01	Outfall 001	1.4022	1.4022	100	1.4624	1.4624	1.4624	0.0602	602
11	Q2292-01	SW-1	1.3915	1.3915	500	1.4302	1.4302	1.4302	0.0387	77.4
12	Q2292-02	SW-2	1.4054	1.4054	1000	1.4487	1.4487	1.4487	0.0433	43.3
13	Q2293-01	SW-3	1.3996	1.3996	400	1.4934	1.4934	1.4934	0.0938	234.5
14	Q2293-01DUP	SW-3DUP	1.4901	1.4901	400	1.5842	1.5842	1.5842	0.0941	235.3
15	Q2300-02	COMP	1.4980	1.4980	100	1.5789	1.5789	1.5789	0.0809	809

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona
ANALYST: jignesh
Date: 06/12/2025
Run Number: LB136145
BalanceID: WC SC-6
OvenID: WC OVEN-1
FilterID: 17416528
ThermometerID: WET OVEN#1

TEMP1 IN:	103 °C	06/12/2025 14:00	**TEMP1 OUT:**	104 °C	06/12/2025 15:00
TEMP2 IN:	103 °C	06/12/2025 15:30	**TEMP2 OUT:**	104 °C	06/12/2025 16:30
TEMP3 IN:	104 °C	06/13/2025 10:00	**TEMP3 OUT:**	103 °C	06/13/2025 11:30
TEMP4 IN:	103 °C	06/13/2025 12:00	**TEMP4 OUT:**	104 °C	06/13/2025 13:35

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
16	Q2309-01	EFFLUENT	1.4834	1.4834	20	1.5331	1.5331	1.5331	0.0497	2485
17	Q2309-04	AERATION	1.4981	1.4981	20	1.6252	1.6252	1.6252	0.1271	6355

A = Sample Volume (ml)
B = Final Empty Dish Weight (g)
C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)
D = Weight (g)

Weight (g) = C - B

Result mg/L = $\frac{D}{A} * 1000 * 1000$

WORKLIST(Hardcopy Internal Chain)

LB 136145

WorkList Name : TSS Q2276 **WorkList ID :** 190170 **Department :** Wet-Chemistry **Date :** 06-13-2025 07:49:33

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2276-01 D	MH-6-10-2025	Water	TSS	Cool 4 deg C	EURO03	D31	06/10/2025	SM2540 D
Q2286-03 L	LAW-25-0084	Water	TSS	Cool 4 deg C	PSEG03	D41	06/10/2025	SM2540 D
Q2289-01 D	SP-1	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2289-02 D	SP-2	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2289-03 D	SP-3	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2290-01 D	Outfall 1	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2290-02 D	Outfall 2	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2291-01 D	Outfall 001	Water	TSS	Cool 4 deg C	ATGG01	A11	06/10/2025	SM2540 D
Q2292-01 D	SW-1	Water	TSS	Cool 4 deg C	ATGG01	A12	06/10/2025	SM2540 D
Q2292-02 D	SW-2	Water	TSS	Cool 4 deg C	ATGG01	A12	06/10/2025	SM2540 D
Q2293-01 D	SW-3	Water	TSS	Cool 4 deg C	ATGG01	A12	06/10/2025	SM2540 D
Q2300-02 B	COMP	Water	TSS	Cool 4 deg C	ARAM01	D41	06/11/2025	SM2540 D
Q2309-04 D	EFFLUENT	Water	TSS	Cool 4 deg C	HOLL01	D51	06/12/2025	SM2540 D
Q2309-04	AERATION	Water	TSS	Cool 4 deg C	HOLL01	D51	06/12/2025	SM2540 D

Date/Time 06/13/25 08:00

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 06/13/25 14:30

Raw Sample Received by:

Raw Sample Relinquished by:

Reviewed By:Iwona PM
On:6/13/2025 12:24:22
Inst Id :WC SC-3
LB :LB136145

Reviewed By:jignesh
On:6/18/2025 9:42:16 AM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: SM4500-P E

Parameter: Phosphorus-Ortho

Run Number: LB136152

ANALYST: Iwona

SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP113522
calibration std. phosphate 0.5 ppm	WP113521
calibration std. phosphate 0.3 ppm	WP113520
calibration std. phosphate 0.1 ppm	WP113519
calibration std. phosphate 0.05 ppm	WP113518
calibration std. 0 ppm	WP113517
phosphate CCV std.	WP113523
5N sulfuric acid	WP112831
Combined reagent	WP113528
Phenolphthalein indicator	WP113378
Sodium hydroxide, 1N	WP111323
Phosphate ICV-LCS Std	WP113524
Phosphate LOD-MDL Std 0.025ppm	WP113526

Intercept: -0.0032 **Slope:** 0.6561 **Regression:** 0.999805

Seq	Lab ID	True Value (mg/L)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	%D	AnalDate	AnalTime
1	CAL1	0.00	1	50	50	0.000	0.005		06/13/2025	12:30
2	CAL2	0.05	1	50	50	0.033	0.055	10	06/13/2025	12:30
3	CAL3	0.10	1	50	50	0.062	0.099	-1	06/13/2025	12:31
4	CAL4	0.30	1	50	50	0.184	0.285	-5	06/13/2025	12:31
5	CAL5	0.50	1	50	50	0.326	0.502	0.4	06/13/2025	12:32
6	CAL6	1.00	1	50	50	0.655	1.003	0.3	06/13/2025	12:32

Reviewed By:jignesh
On:6/18/2025 9:42:16 AM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: SM4500-P E

ANALYST: Iwona

Parameter: Phosphorus-Ortho

SUPERVISOR REVIEW BY: jignesh

Run Number: LB136152

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	AnalDate	AnalTime
1	ICV	0.50	1	50	50	0.328	0.505	06/13/2025	12:33
2	ICB		1	50	50	0.001	0.006	06/13/2025	12:33
3	CCV1	0.5	1	50	50	0.337	0.519	06/13/2025	12:34
4	CCB1		1	50	50	0.001	0.006	06/13/2025	12:34
5	RL Check	0.05	1	50	50	0.028	0.048	06/13/2025	12:35
6	LB136152BL		1	50	50	0.001	0.006	06/13/2025	12:35
7	LB136152BS	0.5	1	50	50	0.322	0.496	06/13/2025	12:36
8	Q2126-09		1	50	50	0.011	0.022	06/13/2025	12:36
9	Q2309-01		1	50	50	0.065	0.104	06/13/2025	12:37
10	Q2309-01DUP		1	50	50	0.064	0.102	06/13/2025	12:37
11	Q2309-01MS	0.5	1	50	50	0.382	0.587	06/13/2025	12:38
12	Q2309-01MSD	0.5	1	50	50	0.381	0.586	06/13/2025	12:38
13	CCV2	0.5	1	50	50	0.328	0.505	06/13/2025	12:39
14	CCB2		1	50	50	0.000	0.005	06/13/2025	12:39

WORKLIST(Hardcopy Internal Chain)

LB136152

WorkList Name : ORTHO PH- 061225 **WorkList ID :** 190183 **Department :** Wet-Chemistry **Date :** 06-12-2025 13:05:48

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2126-09	MDL-WATER-03-QT2-2025	Water	Phosphorus-Ortho	Cool 4 deg C	ALLI03	QA Of	05/23/2025	SM4500-P E
Q2309-01	EFFLUENT	Water	Phosphorus-Ortho	Cool 4 deg C	HOLL01	D51	06/12/2025	SM4500-P E

Date/Time 06/12/25 13:20
Raw Sample Received by: 12(-0)
Raw Sample Relinquished by: JP(COC)

Date/Time 06/12/25 16:50
Raw Sample Received by: JP(COC)
Raw Sample Relinquished by: 12(-0)

Reviewed By:jignesh
On:6/18/2025 9:42:16 AM
Inst Id :SPECTROPHOTOME

Reviewed By:jignesh
On:6/13/2025 3:34:15 PM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: 365.3

Parameter: Phosphorus-Total

Run Number: LB136153

ANALYST: Iwona

SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP113522
calibration std. phosphate 0.5 ppm	WP113521
calibration std. phosphate 0.3 ppm	WP113520
calibration std. phosphate 0.1 ppm	WP113519
calibration std. phosphate 0.05 ppm	WP113518
calibration std. 0 ppm	WP113517
phosphate CCV std.	WP113523
5N sulfuric acid	WP112831
Combined reagent	WP113528
Phenolphthalein indicator	WP113378
Sodium hydroxide, 1N	WP111323
Phosphate ICV-LCS Std	WP113524
Phosphate LOD-MDL Std 0.025ppm	WP113526

Intercept: -0.0034 **Slope:** 0.6565 **Regression:** 0.99966

Seq	Lab ID	True Value (mg/L)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	%D	AnalDate	AnalTime
1	CAL1	0.00	1	50	50	0.000	0.005		06/13/2025	13:15
2	CAL2	0.05	1	50	50	0.033	0.055	10	06/13/2025	13:15
3	CAL3	0.10	1	50	50	0.066	0.106	6	06/13/2025	13:16
4	CAL4	0.30	1	50	50	0.182	0.282	-6	06/13/2025	13:16
5	CAL5	0.50	1	50	50	0.321	0.494	-1.2	06/13/2025	13:17
6	CAL6	1.00	1	50	50	0.658	1.007	0.7	06/13/2025	13:17

Reviewed By:jignesh
On:6/13/2025 3:34:15 PM
Inst Id :SPECTROPHOTOME

Analytical Summary Report

Analysis Method: 365.3
ANALYST: Iwona
Parameter: Phosphorus-Total
SUPERVISOR REVIEW BY: jignesh
Run Number: LB136153

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	AnalDate	AnalTime
1	ICV	0.50	1	50	50	0.321	0.494	06/13/2025	13:18
2	ICB		1	50	50	0.002	0.008	06/13/2025	13:18
3	CCV1	0.50	1	50	50	0.334	0.514	06/13/2025	13:19
4	CCB1		1	50	50	0.003	0.010	06/13/2025	13:19
5	RL Check	0.05	1	50	50	0.030	0.051	06/13/2025	13:20
6	PB168478BL		1	50	50	0.001	0.007	06/13/2025	13:20
7	PB168478BS	0.50	1	50	50	0.318	0.490	06/13/2025	13:21
8	Q2126-09		1	50	50	0.014	0.027	06/13/2025	13:21
9	Q2289-01		1	50	50	0.027	0.046	06/13/2025	13:22
10	Q2289-01DUP		1	50	50	0.027	0.046	06/13/2025	13:22
11	Q2289-01MS	0.50	1	50	50	0.332	0.511	06/13/2025	13:23
12	Q2289-01MSD	0.50	1	50	50	0.328	0.505	06/13/2025	13:24
13	Q2289-02		1	50	50	0.037	0.062	06/13/2025	13:24
14	Q2289-03		1	50	50	0.058	0.094	06/13/2025	13:25
15	Q2290-01		1	50	50	0.060	0.097	06/13/2025	13:25
16	CCV2	0.50	1	50	50	0.322	0.496	06/13/2025	13:26
17	CCB2		1	50	50	0.003	0.010	06/13/2025	13:26
18	Q2290-02		1	50	50	0.077	0.122	06/13/2025	13:27
19	Q2291-01		1	50	50	0.045	0.074	06/13/2025	13:27
20	Q2292-01		1	50	50	0.103	0.162	06/13/2025	13:28
21	Q2292-02		1	50	50	0.074	0.118	06/13/2025	13:28
22	Q2293-01		1	50	50	0.135	0.211	06/13/2025	13:29
23	Q2309-01		1	50	50	0.086	0.136	06/13/2025	13:29
24	CCV3	0.50	1	50	50	0.326	0.502	06/13/2025	13:30
25	CCB3		1	50	50	0.002	0.008	06/13/2025	13:30

Reviewed By:Sohil
On:6/16/2025 1:27:53 PM
Inst Id :Konelab 20
LB :LB136156

LB136156

Test results | Aquakem 7.2AQ1 | Page: 1

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

Reviewed by : 12 | Instrument ID : Konelab

6/13/2025 15:52

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	0.966	0.0	0.218	
ICB1	0.030	0.0	0.018	
CCV1	0.997	0.0	0.224	
CCB1	0.029	0.0	0.018	
RL CHECK	0.113	0.0	0.036	113% (50-150) 6/13/25 12
PB168427BL	0.027	0.0	0.017	
PB168427BS	0.997	0.0	0.225	
Q2286-03	2.296	0.0	0.502	Test limit high
Q2286-03DUP	2.288	0.0	0.500	Test limit high
Q2286-03MS	2.959	0.0	0.644	Test limit high
Q2286-03MSD	2.915	0.0	0.635	Test limit high
Q2309-01	8.485	0.0	1.825	Test limit high
Q2309-05	6.171	0.0	1.330	Test limit high
PB168426BL	0.033	0.0	0.018	
CCV2	0.950	0.0	0.214	
CCB2	0.027	0.0	0.017	
PB168426BS	0.972	0.0	0.219	
Q2285-04	0.094	0.0	0.032	
Q2285-04DUP	0.093	0.0	0.031	
Q2285-04MS	0.986	0.0	0.222	
Q2285-04MSD	1.005	0.0	0.226	
Q2286-03DLX2	1.317	0.0	0.293	
Q2286-03DUPDLX2	1.299	0.0	0.289	
Q2309-01DLX10	0.839	0.0	0.191	
Q2309-05DLX5	1.279	0.0	0.285	
CCV3	1.000	0.0	0.225	
CCB3	0.035	0.0	0.019	

N	27
Mean	1.415
SD	1.9349
CV%	136.76

Reviewed By:Sohil
On:6/16/2025 1:27:53 PM
Inst Id :Konelab 20
LB :LB136156

Aquakem v. 7.2AQ1
Results from time period:
Fri Jun 13 13:55:36 2025
Fri Jun 13 15:47:20 2025

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time
0.0PPM	A	Ammonia-N	P	0.0103	mg/l	6/13/2025 13:55:36
0.1PPM	A	Ammonia-N	P	0.1054	mg/l	6/13/2025 13:55:37
0.2PPM	A	Ammonia-N	P	0.2001	mg/l	6/13/2025 13:55:38
0.4PPM	A	Ammonia-N	P	0.4001	mg/l	6/13/2025 13:55:39
1.0PPM	A	Ammonia-N	P	1.0057	mg/l	6/13/2025 13:55:40
1.3PPM	A	Ammonia-N	P	1.278	mg/l	6/13/2025 13:55:41
2.0PPM	A	Ammonia-N	P	2.0338	mg/l	6/13/2025 13:55:42
ICV1	S	Ammonia-N	P	0.9655	mg/l	6/13/2025 14:52:15
ICB1	S	Ammonia-N	P	0.0295	mg/l	6/13/2025 14:52:16
CCV1	S	Ammonia-N	P	0.9966	mg/l	6/13/2025 14:52:19
CCB1	S	Ammonia-N	P	0.0288	mg/l	6/13/2025 14:52:21
RL CHECK	S	Ammonia-N	P	0.113	mg/l	6/13/2025 14:52:23
PB168427BL	S	Ammonia-N	P	0.027	mg/l	6/13/2025 14:52:25
PB168427BS	S	Ammonia-N	P	0.9971	mg/l	6/13/2025 15:02:56
Q2286-03	S	Ammonia-N	P	2.2957	mg/l	6/13/2025 15:02:58
Q2286-03DUP	S	Ammonia-N	P	2.2877	mg/l	6/13/2025 15:02:59
Q2286-03MS	S	Ammonia-N	P	2.9589	mg/l	6/13/2025 15:03:00
Q2286-03MSD	S	Ammonia-N	P	2.9149	mg/l	6/13/2025 15:03:01
Q2309-01	S	Ammonia-N	P	8.4854	mg/l	6/13/2025 15:03:02
Q2309-05	S	Ammonia-N	P	6.1707	mg/l	6/13/2025 15:03:03
PB168426BL	S	Ammonia-N	P	0.0327	mg/l	6/13/2025 15:03:04
CCV2	S	Ammonia-N	P	0.9495	mg/l	6/13/2025 15:03:05
CCB2	S	Ammonia-N	P	0.0269	mg/l	6/13/2025 15:03:06
PB168426BS	S	Ammonia-N	P	0.9723	mg/l	6/13/2025 15:03:07
Q2285-04	S	Ammonia-N	P	0.094	mg/l	6/13/2025 15:10:10
Q2285-04DUP	S	Ammonia-N	P	0.093	mg/l	6/13/2025 15:10:11
Q2285-04MS	S	Ammonia-N	P	0.9864	mg/l	6/13/2025 15:47:11
Q2285-04MSD	S	Ammonia-N	P	1.0052	mg/l	6/13/2025 15:47:12
Q2286-03DLX2	S	Ammonia-N	P	1.3165	mg/l	6/13/2025 15:47:15
Q2286-03DUPDLX2	S	Ammonia-N	P	1.2987	mg/l	6/13/2025 15:47:16
Q2309-01DLX10	S	Ammonia-N	P	0.8387	mg/l	6/13/2025 15:47:17
Q2309-05DLX5	S	Ammonia-N	P	1.2791	mg/l	6/13/2025 15:47:18
CCV3	S	Ammonia-N	P	0.9999	mg/l	6/13/2025 15:47:19
CCB3	S	Ammonia-N	P	0.0349	mg/l	6/13/2025 15:47:20

Reviewed By:Sohil
On:6/16/2025 1:27:53 PM
Inst Id :Konelab 20
LB :LB136156

Calibration results Aquakem 7.2AQ1 Page: 1

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

Reviewed by : 12 Instrument ID : Konelab

6/13/2025 13:56

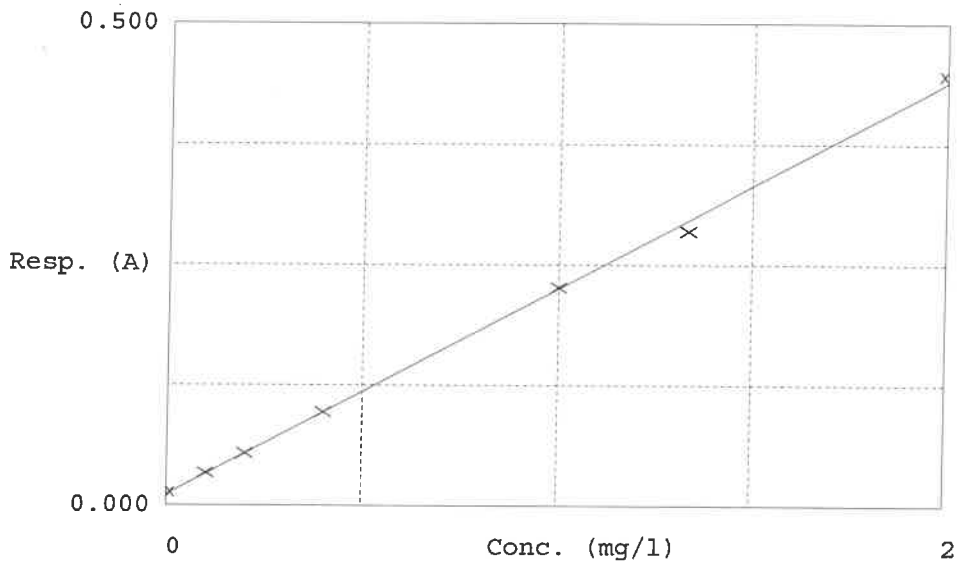
Test Ammonia-N

Accepted 6/13/2025 13:56

Factor 4.678
Bias 0.011

Coeff. of det. 0.998703

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.014	0.0103	0.0000	—
2	NH3-2PPM	0.034	0.1054	0.1000	5.4
3	NH3-2PPM	0.054	0.2001	0.2000	0.0
4	NH3-2PPM	0.097	0.4001	0.4000	0.0
5	NH3-2PPM	0.226	1.0057	1.0000	0.6
6	NH3-2PPM	0.285	1.2780	1.3333	-1.7
7	NH3-2PPM	0.446	2.0338	2.0000	1.7

RB

12
6/13/25

Alliance TECHNICAL GROUP

Water Ammonia Preparation Sheet

PB168427

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

SDG No : N/A

Matrix : WATER

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : IZ

Start Digest Date: 06/13/2025 **Time :** 10:10 **Temp :** 150 °C

End Digest Date: 06/13/2025 **Time :** 11:10 **Temp :** 157 °C

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : WC CYANIDE

Prep Technician Signature: 12

Supervisor Signature: [signature]

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP113449
MS/MSD SPIKE SOL.	1.0ML	WP113450
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP113450
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP111325
NAOH 6N	0.5-2.0ML	WP111318
H2SO4 0.04N	5.0ML	WP112828
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W3155
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 WP111604. Due to bad matrix and client history 1ML was taken as an initial volume for Q2309-01 and Q2309-05

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
06/13/25 11:25	12 (WC)	12 (WC)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Ammonia Preparation Sheet

PB168427

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB168427BL	PBW427	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB168427BS	LCS427	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2286-03DUP	LAW-25-0084DUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2286-03MS	LAW-25-0084MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2286-03MSD	LAW-25-0084MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2286-03	LAW-25-0084	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2309-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q2309-05	INFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

Alliance TECHNICAL GROUP

Water Phosphorus-Total Preparation Sheet

PB168478

SOP ID : M365.3 & SM4500-P E-18

SDG No : N/A

Matrix : WATER

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#3

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

Weigh By : IZ

Start Digest Date: 06/13/2025 **Time :** 09:45 **Temp :** 95 °C

End Digest Date: 06/13/2025 **Time :** 10:45 **Temp :** 96 °C

1 vol Boiler 06/13/25 11:00 96°C
06/13/25 12:00 97°C

Digestion tube ID : M5595

Filter paper ID : 400213

pH Meter ID : N/A

Block Thermometer ID : WC-BLOCK#1

Prep Technician Signature: IZ

Supervisor Signature: JP

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	0.5ML	WP112914
MS/MSD SPIKE SOL.	0.5ML	WP112913
PBW	50.ML	W3112
LOD	50.0ML	WP113526
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
11N H2SO4	1ML	WP112615
AMMONIUM PERSULFATE	0.4g	W3035
pH Paper 0-14	N/A	W3140
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
CAL1	CAL1	50.0ML	WP113517
CAL2	CAL2	50.0ML	WP113518
CAL3	CAL3	50.0ML	WP113519
CAL4	CAL4	50.0ML	WP113520
CAL5	CAL5	50.0ML	WP113521
CAL6	CAL6	50.0ML	WP113522
ICV	ICV	50.0ML	WP113524
ICB	ICB	50.0ML	W3112
CCV	CCV	50.0ML	WP113523
CCB	CCB	50.0ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

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

12 6/13/25

Alliance TECHNICAL GROUP

Water Phosphorus-Total Preparation Sheet

PB168478

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB168478BL	PBW478	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB168478BS	LCS478	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2126-09	MDL-WATER-03-QT2-2025	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-01	SP-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-01DUP	SP-1DUP	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-01MS	SP-1MS	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-01MSD	SP-1MSD	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-02	SP-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2289-03	SP-3	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2290-01	OUTFALL 1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2290-02	OUTFALL 2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2291-01	OUTFALL 001	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2292-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2292-02	SW-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2293-01	SW-3	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q2309-01	EFFLUENT	50	50	<2	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TotalPhos-061225 **WorkList ID :** 190139 **Department :** Distillation **Date :** 06-12-2025 10:56:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2126-09	MDL-WATER-03-QT2-2025	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ALLI03	QA Of	05/23/2025	365.3
Q2289-01	SP-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01		06/10/2025	365.3
Q2289-02	SP-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	06/10/2025	365.3
Q2289-03	SP-3	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	06/10/2025	365.3
Q2290-01	Outfall 1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	06/10/2025	365.3
Q2290-02	Outfall 2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	06/10/2025	365.3
Q2291-01	Outfall 001	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	06/10/2025	365.3
Q2292-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A12	06/10/2025	365.3
Q2292-02	SW-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A12	06/10/2025	365.3
Q2293-01	SW-3	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A12	06/10/2025	365.3
Q2309-01	EFFLUENT	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	HOLL01	D51	06/12/2025	365.3

Date/Time 06/13/25 09:25
Raw Sample Received by: [illegible]
Raw Sample Relinquished by: [illegible]

Date/Time 06/13/25 10:30
Raw Sample Received by: [illegible]
Raw Sample Relinquished by: [illegible]

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Instrument ID: DO METER

Daily Analysis Runlog For Sequence/QCBatch ID # LB136135

Review By	lwona	Review On	6/17/2025 3:00:39 PM
Supervise By	jignesh	Supervise On	6/17/2025 3:03:27 PM
SubDirectory	LB136135	Test	BOD5

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP113509,W3149,WP112832,W3103,W3109,W3105,WP113511,WP113510,WP111323

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB136135BL	LB136135BL	MB	06/12/25 16:30		rubina	OK
2	LB136135BS	LB136135BS	LCS	06/12/25 16:30		rubina	OK
3	Q2300-02	COMP	SAM	06/12/25 16:30		rubina	OK
4	Q2300-02DUP	COMPDUP	DUP	06/12/25 16:30		rubina	OK
5	Q2309-01	EFFLUENT	SAM	06/12/25 16:30		rubina	OK
6	Q2309-05	INFLUENT	SAM	06/12/25 16:30		rubina	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB136143

Review By	jignesh	Review On	6/13/2025 11:04:42 AM
Supervise By	Iwona	Supervise On	6/18/2025 2:52:40 PM
SubDirectory	LB136143	Test	Oil and Grease

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	W3204,M6069,EP2620,WP112782,NA,NA,WP112783,NA,WO112784

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB136143BL	LB136143BL	MB	06/13/25 09:30		jignesh	OK
2	LB136143BS	LB136143BS	LCS	06/13/25 09:30		jignesh	OK
3	Q2276-01	MH-6-10-2025	SAM	06/13/25 09:30		jignesh	OK
4	Q2276-02	Q2276-01MS	MS	06/13/25 09:30		jignesh	OK
5	Q2276-03	Q2276-01MSD	MSD	06/13/25 09:30		jignesh	OK
6	Q2309-01	EFFLUENT	SAM	06/13/25 09:30		jignesh	OK
7	Q2309-02	Q2309-01MS	MS	06/13/25 09:30		jignesh	OK
8	Q2309-03	Q2309-01MSD	MSD	06/13/25 09:30		jignesh	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB136145

Review By	jignesh	Review On	6/13/2025 12:19:03 PM
Supervise By	Iwona	Supervise On	6/13/2025 12:24:22 PM
SubDirectory	LB136145	Test	TSS

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	N/A

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB136145BL	LB136145BL	MB	06/13/25 10:00		jignesh	OK
2	LB136145BS	LB136145BS	LCS	06/13/25 10:00		jignesh	OK
3	Q2276-01	MH-6-10-2025	SAM	06/13/25 10:00		jignesh	OK
4	Q2286-03	LAW-25-0084	SAM	06/13/25 10:00		jignesh	OK
5	Q2289-01	SP-1	SAM	06/13/25 10:00		jignesh	OK
6	Q2289-02	SP-2	SAM	06/13/25 10:00		jignesh	OK
7	Q2289-03	SP-3	SAM	06/13/25 10:00		jignesh	OK
8	Q2290-01	Outfall 1	SAM	06/13/25 10:00		jignesh	OK
9	Q2290-02	Outfall 2	SAM	06/13/25 10:00		jignesh	OK
10	Q2291-01	Outfall 001	SAM	06/13/25 10:00		jignesh	OK
11	Q2292-01	SW-1	SAM	06/13/25 10:00		jignesh	OK
12	Q2292-02	SW-2	SAM	06/13/25 10:00		jignesh	OK
13	Q2293-01	SW-3	SAM	06/13/25 10:00		jignesh	OK
14	Q2293-01DUP	SW-3DUP	DUP	06/13/25 10:00		jignesh	OK
15	Q2300-02	COMP	SAM	06/13/25 10:00		jignesh	OK
16	Q2309-01	EFFLUENT	SAM	06/13/25 10:00		jignesh	OK
17	Q2309-04	AERATION	SAM	06/13/25 10:00		jignesh	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136152

Review By	Iwona	Review On	6/18/2025 9:40:36 AM
Supervise By	jignesh	Supervise On	6/18/2025 9:42:16 AM
SubDirectory	LB136152	Test	Phosphorus-Ortho

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP113522,WP113521,WP113520,WP113519,WP113518,WP113517,WP113523,WP112831,WP113528,WP113378,\

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	06/13/25 12:30		Iwona	OK
2	CAL2	CAL2	CAL	06/13/25 12:30		Iwona	OK
3	CAL3	CAL3	CAL	06/13/25 12:31		Iwona	OK
4	CAL4	CAL4	CAL	06/13/25 12:31		Iwona	OK
5	CAL5	CAL5	CAL	06/13/25 12:32		Iwona	OK
6	CAL6	CAL6	CAL	06/13/25 12:32		Iwona	OK
7	ICV	ICV	ICV	06/13/25 12:33		Iwona	OK
8	ICB	ICB	ICB	06/13/25 12:33		Iwona	OK
9	CCV1	CCV1	CCV	06/13/25 12:34		Iwona	OK
10	CCB1	CCB1	CCB	06/13/25 12:34		Iwona	OK
11	RL Check	RL Check	RL	06/13/25 12:35		Iwona	OK
12	LB136152BL	LB136152BL	MB	06/13/25 12:35		Iwona	OK
13	LB136152BS	LB136152BS	LCS	06/13/25 12:36		Iwona	OK
14	Q2126-09	MDL-WATER-03-QT2	SAM	06/13/25 12:36		Iwona	OK
15	Q2309-01	EFFLUENT	SAM	06/13/25 12:37		Iwona	OK
16	Q2309-01DUP	EFFLUENTDUP	DUP	06/13/25 12:37		Iwona	OK
17	Q2309-01MS	EFFLUENTMS	MS	06/13/25 12:38		Iwona	OK
18	Q2309-01MSD	EFFLUENTMSD	MSD	06/13/25 12:38		Iwona	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136152

Review By	Iwona	Review On	6/18/2025 9:40:36 AM
Supervise By	jignesh	Supervise On	6/18/2025 9:42:16 AM
SubDirectory	LB136152	Test	Phosphorus-Ortho

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP113522,WP113521,WP113520,WP113519,WP113518,WP113517,WP113523,WP112831,WP113528,WP113378,\

19	CCV2	CCV2	CCV	06/13/25 12:39		Iwona	OK
20	CCB2	CCB2	CCB	06/13/25 12:39		Iwona	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136153

Review By	Iwona	Review On	6/13/2025 3:30:38 PM
Supervise By	jignesh	Supervise On	6/13/2025 3:34:15 PM
SubDirectory	LB136153	Test	Phosphorus-Total

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP113522,WP113521,WP113520,WP113519,WP113518,WP113517,WP113523,WP112831,WP113528,WP113378,\

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	06/13/25 13:15		Iwona	OK
2	CAL2	CAL2	CAL	06/13/25 13:15		Iwona	OK
3	CAL3	CAL3	CAL	06/13/25 13:16		Iwona	OK
4	CAL4	CAL4	CAL	06/13/25 13:16		Iwona	OK
5	CAL5	CAL5	CAL	06/13/25 13:17		Iwona	OK
6	CAL6	CAL6	CAL	06/13/25 13:17		Iwona	OK
7	ICV	ICV	ICV	06/13/25 13:18		Iwona	OK
8	ICB	ICB	ICB	06/13/25 13:18		Iwona	OK
9	CCV1	CCV1	CCV	06/13/25 13:19		Iwona	OK
10	CCB1	CCB1	CCB	06/13/25 13:19		Iwona	OK
11	RL Check	RL Check	SAM	06/13/25 13:20		Iwona	OK
12	PB168478BL	PB168478BL	MB	06/13/25 13:20		Iwona	OK
13	PB168478BS	PB168478BS	LCS	06/13/25 13:21		Iwona	OK
14	Q2126-09	MDL-WATER-03-QT2	SAM	06/13/25 13:21		Iwona	OK
15	Q2289-01	SP-1	SAM	06/13/25 13:22		Iwona	OK
16	Q2289-01DUP	SP-1DUP	DUP	06/13/25 13:22		Iwona	OK
17	Q2289-01MS	SP-1MS	MS	06/13/25 13:23		Iwona	OK
18	Q2289-01MSD	SP-1MSD	MSD	06/13/25 13:24		Iwona	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB136153

Review By	Iwona	Review On	6/13/2025 3:30:38 PM
Supervise By	jignesh	Supervise On	6/13/2025 3:34:15 PM
SubDirectory	LB136153	Test	Phosphorus-Total

STD. NAME	STD REF.#
ICAL Standard	N/A
ICV Standard	N/A
CCV Standard	N/A
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP113522,WP113521,WP113520,WP113519,WP113518,WP113517,WP113523,WP112831,WP113528,WP113378,\

19	Q2289-02	SP-2	SAM	06/13/25 13:24		Iwona	OK
20	Q2289-03	SP-3	SAM	06/13/25 13:25		Iwona	OK
21	Q2290-01	Outfall 1	SAM	06/13/25 13:25		Iwona	OK
22	CCV2	CCV2	CCV	06/13/25 13:26		Iwona	OK
23	CCB2	CCB2	CCB	06/13/25 13:26		Iwona	OK
24	Q2290-02	Outfall 2	SAM	06/13/25 13:27		Iwona	OK
25	Q2291-01	Outfall 001	SAM	06/13/25 13:27		Iwona	OK
26	Q2292-01	SW-1	SAM	06/13/25 13:28		Iwona	OK
27	Q2292-02	SW-2	SAM	06/13/25 13:28		Iwona	OK
28	Q2293-01	SW-3	SAM	06/13/25 13:29		Iwona	OK
29	Q2309-01	EFFLUENT	SAM	06/13/25 13:29		Iwona	OK
30	CCV3	CCV3	CCV	06/13/25 13:30		Iwona	OK
31	CCB3	CCB3	CCB	06/13/25 13:30		Iwona	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB136156

Review By	Iwona	Review On	6/16/2025 1:25:57 PM
Supervise By	Sohil	Supervise On	6/16/2025 1:27:53 PM
SubDirectory	LB136156	Test	Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP113529
ICV Standard	WP113531
CCV Standard	WP113530
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP113446
Chk Standard	WP113429,WP111745,WP111385,WP111660

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	06/13/25 13:55		Iwona	OK
2	0.1PPM	0.1PPM	CAL2	06/13/25 13:55		Iwona	OK
3	0.2PPM	0.2PPM	CAL3	06/13/25 13:55		Iwona	OK
4	0.4PPM	0.4PPM	CAL4	06/13/25 13:55		Iwona	OK
5	1.0PPM	1.0PPM	CAL5	06/13/25 13:55		Iwona	OK
6	1.3PPM	1.3PPM	CAL6	06/13/25 13:55		Iwona	OK
7	2.0PPM	2.0PPM	CAL7	06/13/25 13:55		Iwona	OK
8	ICV1	ICV1	ICV	06/13/25 14:52		Iwona	OK
9	ICB1	ICB1	ICB	06/13/25 14:52		Iwona	OK
10	CCV1	CCV1	CCV	06/13/25 14:52		Iwona	OK
11	CCB1	CCB1	CCB	06/13/25 14:52		Iwona	OK
12	RL	RL	LOQ	06/13/25 14:52		Iwona	OK
13	PB168427BL	PB168427BL	MB	06/13/25 14:52		Iwona	OK
14	PB168427BS	PB168427BS	LCS	06/13/25 15:02		Iwona	OK
15	Q2286-03	LAW-25-0084	SAM	06/13/25 15:02	NH3 is high	Iwona	Dilution
16	Q2286-03DUP	LAW-25-0084DUP	DUP	06/13/25 15:02		Iwona	OK
17	Q2286-03MS	LAW-25-0084MS	MS	06/13/25 15:03		Iwona	OK
18	Q2286-03MSD	LAW-25-0084MSD	MSD	06/13/25 15:03		Iwona	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB136156

Review By	Iwona	Review On	6/16/2025 1:25:57 PM
Supervise By	Sohil	Supervise On	6/16/2025 1:27:53 PM
SubDirectory	LB136156	Test	Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP113529
ICV Standard	WP113531
CCV Standard	WP113530
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP113446
Chk Standard	WP113429,WP111745,WP111385,WP111660

19	Q2309-01	EFFLUENT	SAM	06/13/25 15:03	NH3 is high	Iwona	Dilution
20	Q2309-05	INFLUENT	SAM	06/13/25 15:03	NH3 is high	Iwona	Dilution
21	PB168426BL	PB168426BL	MB	06/13/25 15:03		Iwona	OK
22	CCV2	CCV2	CCV	06/13/25 15:03		Iwona	OK
23	CCB2	CCB2	CCB	06/13/25 15:03		Iwona	OK
24	PB168426BS	PB168426BS	LCS	06/13/25 15:03		Iwona	OK
25	Q2285-04	HAM-CONCRETE	SAM	06/13/25 15:10		Iwona	OK
26	Q2285-04DUP	HAM-CONCRETEDU	DUP	06/13/25 15:10		Iwona	OK
27	Q2285-04MS	HAM-CONCRETEMS	MS	06/13/25 15:47		Iwona	OK
28	Q2285-04MSD	HAM-CONCRETEMS	MSD	06/13/25 15:47		Iwona	OK
29	Q2286-03DL	LAW-25-0084DL	SAM	06/13/25 15:47	2X for NH3	Iwona	Dilution
30	Q2286-03DUPDL	LAW-25-0084DUPDL	DUP	06/13/25 15:47		Iwona	OK
31	Q2309-01DL	EFFLUENTDL	SAM	06/13/25 15:47	10X for NH3	Iwona	Confirms
32	Q2309-05DL	INFLUENTDL	SAM	06/13/25 15:47	5X for NH3	Iwona	Confirms
33	CCV3	CCV3	CCV	06/13/25 15:47		Iwona	OK
34	CCB3	CCB3	CCB	06/13/25 15:47		Iwona	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q2309

Test : Ammonia,BOD5,Oil and Grease,Phosphorus-Ortho,Phosphorus-Total,TSS

Prepbatch ID : PB168427,PB168478,

Sequence ID/Qc Batch ID: LB136135,LB136143,LB136145,LB136152,LB136153,LB136156,

Standard ID :

EP2620,WP111317,WP111318,WP111323,WP111325,WP111385,WP111660,WP111745,WP112611,WP112612,WP112615,WP112782,WP112783,WP112828,WP112831,WP112832,WP112913,WP112914,WP113112,WP113113,WP113378,WP113429,WP113444,WP113446,WP113449,WP113450,WP113509,WP113510,WP113511,WP113517,WP113518,WP113519,WP113520,WP113521,WP113522,WP113523,WP113524,WP113525,WP113526,WP113527,WP113528,WP113529,WP113530,WP113531,

Chemical ID :

E3551,E3917,M6041,M6069,M6151,W2306,W2650,W2653,W2654,W2664,W2666,W2700,W2788,W2817,W2858,W2871,W3035,W3074,W3103,W3105,W3109,W3112,W3113,W3132,W3133,W3140,W3144,W3149,W3155,W3169,W3174,W3195,W3196,W3198,W3204,W3206,W3212,WO112784,

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2620	05/30/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 05/30/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1796	NaOH, 0.1N	WP111317	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych 01/09/2025

FROM 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1471	NaOH Solution, 6N	WP111318	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCSC-6)	None	Iwona Zarych 01/09/2025

FROM 240.00000gram of W3113 + 760.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1571	Sodium hydroxide, 1N	WP111323	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 01/09/2025

FROM 4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1494	BORATE BUFFER	WP111325	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/09/2025

FROM 100.00000L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP111317 = Final Quantity: 100.000 L

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
290	Phenol reagent for Ammonia	WP111385	01/13/2025	07/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 01/13/2025

FROM 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
635	EDTA BUFFER FOR AMMONIA	WP111660	01/28/2025	07/28/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 01/28/2025

FROM 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
289	Sodium Hypochlorite for Ammonia	WP111745	02/03/2025	07/31/2025	Rubina Mughal	None	None	Iwona Zarych 02/03/2025

FROM 50.00000ml of W3112 + 50.00000ml of W3174 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
153	Ammonia Stock Std. (1000 ppm)	WP112611	04/07/2025	10/07/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 04/07/2025

FROM 3.81900gram of W3196 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1895	Ammonia Stock Std, 1000PPM-SS	WP112612	04/07/2025	10/07/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 04/07/2025

FROM 3.81900gram of W3195 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1211	11 N sulfuric acid	WP112615	04/03/2025	10/07/2025	Niha Farheen Shaik	None	None	Iwona Zarych 04/07/2025

FROM 306.00000ml of M6041 + 694.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
229	1:1 HCL	WP112782	04/22/2025	08/18/2025	Jignesh Parikh	None	None	Iwona Zarych 04/22/2025

FROM 500.00000ml of M6151 + 500.00000ml of W3112 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2470	1664A SPIKING SOLN	WP112783	04/22/2025	10/03/2025	Jignesh Parikh	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 04/22/2025

FROM 1000.00000ml of E3917 + 4.00000gram of W2817 + 4.00000gram of W2871 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1597	0.04 N H2SO4	WP112828	04/25/2025	10/25/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/25/2025

FROM 1.00000ml of M6041 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
126	5N sulfuric acid	WP112831	04/25/2025	10/25/2025	Rubina Mughal	None	None	Iwona Zarych 04/25/2025

FROM 140.00000ml of M6041 + 860.00000ml of W3112 = Final Quantity: 1.000 L

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1841	Sulfuric Acid, 1N	WP112832	04/25/2025	10/25/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 04/25/2025

FROM 2.80000ml of M6041 + 97.20000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
115	Phosphate Stock Std. (50 ppm)	WP112913	05/01/2025	11/01/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 05/06/2025

FROM 0.11000gram of W3198 + 500.00000ml of W3112 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2790	Phosphate Stock std, 50PPM-SS	WP112914	05/01/2025	11/01/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 05/06/2025

FROM 0.11000gram of W3206 + 500.00000ml of W3112 = Final Quantity: 500.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
648	Ammonium molybdate solution	WP113112	05/16/2025	11/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 05/16/2025

FROM 20.00000gram of W2664 + 480.00000ml of W3112 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
588	Potassium Antimonyl Tartrate	WP113113	05/16/2025	11/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 05/16/2025

FROM 1.37150gram of W2306 + 500.00000ml of W3112 = Final Quantity: 500.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1213	Phenolphthalein indicator	WP113378	06/04/2025	12/04/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 06/05/2025

FROM 0.10000gram of W2650 + 50.00000ml of W2788 + 50.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
740	sodium nitroferricyanide for ammonia	WP113429	06/06/2025	07/06/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 06/06/2025

FROM 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2457	COD Stock std-SS, 1000ppm	WP113444	06/09/2025	06/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 06/11/2025

FROM 0.08500gram of W3169 + 100.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2459	COD ICV-LCS std, 50ppm	WP113446	06/09/2025	06/16/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/11/2025

FROM 9.50000ml of W3112 + 0.50000ml of WP113444 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1639	Ammonia Intermediate Std-Second source, 50PPM	WP113449	06/09/2025	07/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 06/10/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP112612 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1322	Ammonia Intermediate Std, 50PPM	WP113450	06/09/2025	07/09/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 06/10/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP112611 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
127	BOD Dilution fluid	WP113509	06/12/2025	06/13/2025	Rubina Mughal	None	None	Jignesh Parikh 06/13/2025

FROM 18.00000L of W3112 + 3.00000PILLOW of W3144 = Final Quantity: 18.000 L

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
129	Glutamic acid-glucose mix for BOD	WP113510	06/12/2025	06/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Jignesh Parikh 06/13/2025

FROM 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
128	polyseed seed control	WP113511	06/12/2025	06/13/2025	Rubina Mughal	None	None	Jignesh Parikh 06/13/2025

FROM 1.00000PILLOW of W3212 + 300.00000ml of WP113509 = Final Quantity: 300.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
122	calibration std. 0 ppm	WP113517	06/13/2025	06/20/2025	Iwona Zarych	None	None	Jignesh Parikh 06/13/2025

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
121	calibration std. phosphate 0.05 ppm	WP113518	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.90000ml of W3112 + 0.10000ml of WP112913 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
120	calibration std. phosphate 0.1 ppm	WP113519	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP112913 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
119	calibration std. phosphate 0.3 ppm	WP113520	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.40000ml of W3112 + 0.60000ml of WP112913 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
118	calibration std. phosphate 0.5 ppm	WP113521	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP112913 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
117	calibration std. phosphate 1 ppm	WP113522	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 98.00000ml of W3112 + 2.00000ml of WP112913 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
124	phosphate CCV std.	WP113523	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP112913 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3805	Phosphate ICV-LCS Std	WP113524	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP112914 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3907	Phosphate MDL-LOD-LOQ spike solution, 5ppm	WP113525	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 9.00000ml of W3112 + 1.00000ml of WP112913 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3814	Phosphate LOD-MDL Std 0.025ppm	WP113526	06/13/2025	06/20/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/13/2025

FROM 99.50000ml of W3112 + 0.50000ml of WP113525 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
590	Ascorbic Acid	WP113527	06/13/2025	06/14/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 06/13/2025

FROM 0.52800gram of W3074 + 30.00000ml of W3112 = Final Quantity: 30.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
658	Combined reagent	WP113528	06/13/2025	06/14/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 06/13/2025

FROM 15.00000ml of WP113112 + 30.00000ml of WP113527 + 5.00000ml of WP113113 + 50.00000ml of WP112831 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
275	Ammonia Calibration Std. (2 ppm)	WP113529	06/13/2025	06/14/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/17/2025

FROM 48.00000ml of W3112 + 2.00000ml of WP113450 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
285	Ammonia CCV Std. (1 ppm)	WP113530	06/13/2025	06/14/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/17/2025

FROM 49.00000ml of W3112 + 1.00000ml of WP113450 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
286	Ammonia ICV Std. (1 ppm)	WP113531	06/13/2025	06/14/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 06/17/2025

FROM 49.00000ml of W3112 + 1.00000ml of WP113449 = Final Quantity: 50.000 ml

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	12/04/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3917

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 #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

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	08/18/2025	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.	A1561-500GM / POTASSIUM ANTIMONY TARTRATE TRIHYDRATE, 500G	2GH0057	12/11/2027	12/11/2017 / apatel	12/11/2017 / apatel	W2306

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PCI Scientific Supply, Inc.	J2870-1 / PHENOLPHTHALEIN, INDICATOR F/TITRATION, 500G	0000235350	06/04/2025	01/31/2020 / AMANDEEP	01/20/2020 / apatel	W2650

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AC156212500 / GLUTAMIC ACID BIOCHEM REG, 250G	A0405990	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2653

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	D16-500 / DEXTROSE ANHYDROUS ACS REAGENT, 500G(New)	186122A	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2654

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J07716-1 / Ammonium Molybdate 500G	0000234410	02/11/2026	02/10/2020 / AMANDEEP	01/31/2020 / apatel	W2664

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 #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	2019111354	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2700

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC16721-3 / Isopropanol, 99%	C20F23007	06/23/2025	12/30/2020 / apatel	12/30/2020 / apatel	W2788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A12244 / Stearic acid, 98%, 100 g	U20E006	04/02/2026	04/02/2021 / apatel	04/02/2021 / apatel	W2817

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	M13H048	01/07/2026	07/07/2021 / apatel	07/07/2021 / apatel	W2858

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	0000266903	05/04/2027	09/07/2021 / apatel	08/26/2021 / apatel	W2871

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	BDH0214-500G / Ammonium Persulfate Crystal, 500g	MKCR9319	06/30/2028	03/05/2024 / Iwona	06/06/2023 / Iwona	W3035

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0938-7 / Ascorbic Acid, 500 gms	MKCS4627	09/30/2025	01/16/2024 / Iwona	01/16/2024 / Iwona	W3074

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	4620-32 / MANGANOUS SULFATE SOLUTION-364	2403J02	03/31/2026	04/22/2024 / Iwona	04/22/2024 / Iwona	W3103

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LITRE	4403S13	09/30/2025	04/22/2024 / Iwona	04/22/2024 / Iwona	W3105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL04100-4 / Alkaline Iodide Azide, 1 L	1405D67	04/30/2026	05/23/2024 / Iwona	05/23/2024 / Iwona	W3109

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK	10D0142	09/17/2029	09/17/2024 / Iwona	09/17/2024 / Iwona	W3140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk	A4169	06/30/2029	11/20/2024 / rubina	10/01/2024 / Iwona	W3144

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,PK100,CS12	14-860	12/02/2029	12/02/2024 / Iwona	12/02/2024 / Iwona	W3155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / Iwona	01/03/2025 / Iwona	W3169

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	2501J28	07/31/2025	01/24/2025 / Iwona	01/24/2025 / Iwona	W3174

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 / Iwona	03/19/2025 / Iwona	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 / Iwona	03/19/2025 / Iwona	W3196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRYS, ACS, 500G	MKCW6723	10/31/2028	04/11/2025 / Iwona	04/11/2025 / Iwona	W3198

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	25c0362005	04/30/2026	04/22/2025 / jignesh	04/18/2025 / jignesh	W3204

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

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	136742-80 / POLYSEED	132409	09/30/2026	05/21/2025 / Iwona	05/21/2025 / Iwona	W3212

CERTIFICATE OF ANALYSIS

Printed: 12/8/2017

Customer No : 30017 **Customer :** PCI SCIENTIFIC **Customer PO :** 6035343

Order Number : 3008126 **Delivery # :** 58495347

Catalog : A1561 Potassium Antimony Tartrate Trihydrate, Reagent, ACS **Lot :** 2GH0057

W2306
Received
12/11/17
AP

Chemical Formula : $C_8H_4K_2O_{12}Sb_2.3H_2O$ **Formula Weight :** 667.87

CAS# : 28300-74-5

Test	Limit Min.	Limit Max.	Results
ASSAY ($C_8H_4K_2O_{12}Sb_2.3HO$)	99.0	103.0 %	101.0 %
TITRATABLE ACID OR BASE	--	0.020 meq/g	<0.020 meq/g
LOSS ON DRYING	--	2.7 %	<2.7 %
ARSENIC (As)	--	0.015 %	<0.015 %
APPEARANCE			WHITE POWDER
DATE OF MANUFACTURE			29-DEC-2015

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

Read and understand label and MSDS/SDS before handling any chemical. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. The customer must ensure to provide its users adequate hazardous material training and appropriate protective gears before handling our chemicals.

Certificate of Analysis Results Certified By:

Ibad Tirmizi
Director, Quality Assurance, Quality Control
New Brunswick, NJ 08901

spectrum CHEMICAL MFG CORP
SpectrumChemical.com

Corporate Office:
755-769 Jersey Ave.
New Brunswick, NJ 08901
(732) 214-1300

West Coast Plant:
14422 S. San Pedro St.
Gardena, CA 90248
(310) 516-8000

W2664 Received on 01/31/2020 by AP

Ammonium Molybdate, 4-Hydrate, Crystal
BAKER ANALYZED® A.C.S. Reagent

(ammonium heptamolybdate, tetrahydrate)

Material No.: 0716-01
Batch No.: 0000234410
Manufactured Date: 2019/02/13
Retest Date: 2026/02/11
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (as MoO_3)	81.0 - 83.0 %	81.4
ACS - Insoluble Matter	<= 0.005 %	< 0.001
Chloride (Cl)	<= 0.002 %	< 0.002
Nitrate (NO_3)	Passes Test	PT
Arsenate, Phosphate and Silicate (as SiO_2)	<= 0.001 %	< 0.001
ACS - Phosphate (PO_4)	<= 5 ppm	< 5
Sulfate (SO_4)	<= 0.02 %	< 0.02
Heavy Metals (as Pb)	<= 0.001 %	< 0.001
Magnesium (Mg)	<= 0.005 %	< 0.001
Potassium (K)	<= 0.01 %	< 0.01
Sodium (Na)	<= 0.01 %	<0.001

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

Country of Origin: US
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

W2650 Received on 01/20/2020 by AP

Phenolphthalein, Powder
BAKER ANALYZED® A.C.S. Reagent

Material No.: 2870-01
Batch No.: 0000235350
Manufactured Date: 2018/06/06
Retest Date: 2025/06/04
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
ACS - Clarity of Solution	Passes Test	PT
Visual Transition Interval - pH...8.0 (Colorless)	Passes Test	PT
Visual Transition Interval - pH...10.0 (Red)	Passes Test	PT

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
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

Hexadecane, 99.0%

Material No.: H223-57
Batch No.: 0000266903
Manufactured Date: 2020/05/05
Retest Date: 2027/05/04
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ($CH_3(CH_2)_{14}CH_3$) (by GC)	>= 99.0 %	99.3
Infrared Spectrum	Passes Test	PT

For Laboratory, Research or Manufacturing Use

Country of Origin: US
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

ThermoFisher SCIENTIFIC

Certificate of Analysis

W2858 Received by AP on 07/07/2021

Product No.: 33213

Product: Phenol, ACS, 99+%, stab.

Lot No.: M13H048

Test	Limits	Results
Assay	99.0 % min	99.8 %
Freezing point	40.5ºC min	40.5 ºC
Clarity of solution	To pass test	Passes
Residue after evaporation	0.05 % max	< 0.05 %
Water	0.5 % max	0.2 %

Retest date: January 7, 2026

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ThermoFisher SCIENTIFIC

Certificate of Analysis

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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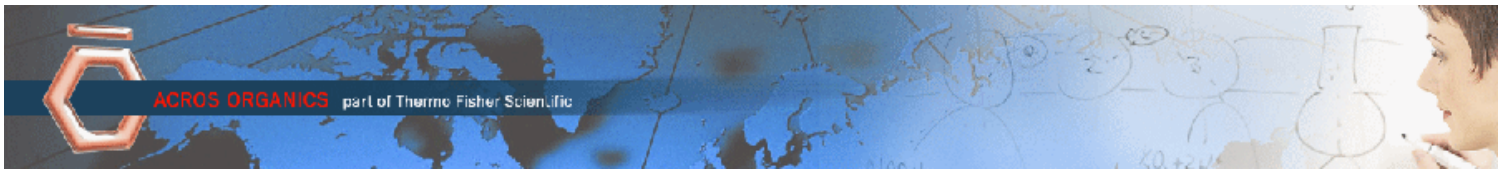
W2653 Received on 1/24/2020 by AP



ACROS ORGANICS

Version	0
Molecular weight	147.13
Molecular formula	C5 H9 N O4
CAS No	56-86-0
Linear formula	HO2CCH2CH2CH(NH2)CO2H
Flash point (°C)	

Certificate of Analysis

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Catalog Number	15621	**Quality Test / Release Date**	13 March 2019
Lot Number	A0405990	**Suggested Retest Date**	March 2022

Description	L(+)-Glutamic acid,99%
Country of Origin	CHINA
Declaration of Origin	plant

Origin Comment	The product is made by fermentation of sugar molasses

Result Name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms	Conforms
Titration with NaOH	98.5 to 100.5 % (On dried substance)	99.32 % (On dried substance)
Loss on drying	=<0.5 % (105°C, 3 hrs)	0.002 % (105°C, 3 hrs)
Heavy metals (as Pb)	=<10 ppm	=<10 ppm
Sulfated ash	=<0.1 %	0.08 %
Other amino acids	not detectable	not detectable
Specific optical rotation	+30.5° to +32.5° (20°C, 589 nm) (on dried substance)	+32° (20°C, 589 nm) (on dried substance)
Specific optical rotation	(c=10, 2N HCl)	(c=10, 2N HCl)
Chloride (Cl)	=<200 ppm	=<200 ppm
Iron (Fe)	=<30 ppm	=<10 ppm
Sulfate (SO4)	=<300 ppm	=<200 ppm
Ammonium (NH4)	=<200 ppm	=<200 ppm
Arsenic oxide (As2O3)	=<1 ppm	=<1 ppm

L. Van den Broek, QA Manager Issued: 24 January 2020

Acros Organics
ENA23, zone 1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA Fax 201-796-1329

ThermoFisher SCIENTIFIC

W2817
Rec. 04/02/2021

Product Specification

Product Name: Stearic acid, 98%, Thermo Scientific Chemicals
Catalog Number: A12244.14

CAS Number:	57-11-4
Molecular Formula:	C18H36O2
Molecular Weight:	284.48
InChI Key:	QIQXTHQIDYTFRH-UHFFFAOYSA-N
SMILES:	CCCCCCCCCCCCCCCCCC(O)=O
Synonym:	stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016 stearic acid, ion(1-) (8CI) glycon TP glycon DP acidum stearinicul hydrofol acid 150

Product Specification

Appearance (Color):	White
Form:	Crystals or powder or crystalline powder or flakes or waxy solid
Assay (Silylated GC):	≥97.5%
Melting Point (clear melt):	67.0-74.0?C

Date Of Print: 11/30/2023

Product Specifications are subject to amendment and may change over time. Data contained is accurate as of the date printed.

CERTIFICATE OF ANALYSIS

Product Name	ISOPROPYL ALCOHOL, 99%
Grade	Meets ACS/USP/NF Monographs
Catalog #	231000099, zp231000099
Lot #	C20F23007
Date of Manufacture:	06/23/20
Recommended Retest Date:	Five Years from Date of Manufacture

W2788 Received on 12/30/2020 by AP

TEST	MONO GRAPH	SPECIFICATION	RESULT
Assay (corrected for water)	USP	99.0% min	99.92%
Assay (corrected for water)	ACS	99.5% min	
Solubility in water	ACS+	To Pass Test	Pass
Appearance	ACS+	Clear, colorless liquid	Pass
Color, APHA	ACS	10 max	1
Limit of Nonvolatile Residue	USP+	NMT 2.5 mg (0.005%)	0.1 mg
Residue after Evaporation	ACS+	0.001% max	< 0.001%
Specific Gravity	USP	0.783 - 0.787 @25°C	0.783
Identification A - Infrared Absorption	USP	To Pass Test	Pass
Identification B	USP	To Pass Test	Pass
Refractive Index @ 20°C	USP	1.376-1.378	1.377
Acidity	USP+	NMT 0.70 ml of 0.020N NaOH is required	0.30 mL
Titrable Acid or Base	ACS+	0.0001 meq/g max	0.0001 meq/g
Carbonyl Compounds	ACS	Propionaldehyde 0.002% max	< 0.002%
		Acetone 0.002% max	None Detected
Limit of Volatile Impurities	USP	Diethyl Ether NMT 0.1%	< 0.1%
		Acetone NMT 0.1%	None Detected
		Diisopropyl Ether NMT 0.1%	< 0.1%
		n-Propyl Alcohol NMT 0.1%	< 0.1%
		2-Butanol NMT 0.1%	< 0.1%
		Total NMT 1.0%	< 0.1%
Water, wt%	ACS	NMT 0.2%	0.05%
Water Determination	USP	NMT 0.5%	

+ This test is performed quarterly

58 Vale Road, Brookfield, Connecticut, 06804, USA | P. 800.243.5360
www.pharmco.com | www.greenfield.com

Certification and Compliance Statements

This lot of Isopropyl Alcohol complies with all of the current requirements listed in the United States Pharmacopeia, American Chemical Society monographs and the National Formulary.
No chemicals whatsoever are used as solvents at any point in the manufacture, processing or packaging of Isopropyl Alcohol. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in IPA Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>.
This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.
This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

Approved by: D. Simoncelli, Quality Control Chemist

Date of Approval: 06/23/2020

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Sigma-Aldrich.

W 3035
Lec. 6/6/23 12

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

Certificate of Analysis

Product Name:
Ammonium persulfate - ACS reagent, ≥98.0%

Product Number:	**248614**
Batch Number:	**MKCR9319**
Brand:	SIGALD
CAS Number:	7727-54-0
MDL Number:	MFCD00003390
Formula Weight:	228.20 g/mol
Quality Release Date:	13 OCT 2022

$(NH_4)_2S_2O_8$

Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Crystals
ICP Major Analysis Confirms Sulfur Component	Confirmed	Confirmed
Titration by KMNO4	≥ 98.0 %	100.0 %
Residue on ignition (Ash)	≤ 0.05 %	< 0.05 %
Insoluble Matter c = 10 %; In Water	≤ 0.005 %	0.002 %
Chloride and Chlorate (as Cl)	≤ 0.001 %	< 0.001 %
Iron (Fe)	≤ 0.001 %	< 0.001 %
Heavy Metal as Lead	≤ 0.005 %	< 0.001 %
Manganese (Mn)	≤ 0.5 ppm	< 0.1 ppm
Titratable Acid (meq/g)	≤ 0.04	< 0.04
Meets ACS Requirements	Current ACS Specification	Conforms

Larry Coers, Director
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.

Certificate Of Analysis

Date of Release: 11/14/2019

W2700 Recived by AP on 3/11/2020

Name: **Sodium Borate, Decahydrate**
ACS

Item No: **SX0355 All Sizes**
Lot / Batch No: **2019111354**
Country of Origin: **India**

Item	Specifications	Analysis
Assay (Na2B4O7 • 10H2O)	99.5 - 105.0%	101.7%
Calcium (Ca)	0.005% max.	0.003%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Crystals	Passes Test
Heavy Metals (as Pb)	0.001% max.	<0.001%
Insoluble Matter	0.005% max.	0.002%
Iron (Fe)	5 ppm max.	<5 ppm
pH of a 0.01 M solution at 25C	9.15 - 9.20	9.17
Phosphate (PO4)	0.001% max.	<0.001%
Sulfate (SO4)	0.005% max.	<0.005%

Joe Schoellkopff

Quality Control Manager

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

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation
400 Summit Drive
Burlington, MA 01803
U.S.A.

W2654 Received on 1/24/2020 by AP

ThermoFisher SCIENTIFIC

Certificate of Analysis

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

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

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Catalog Number	D16	Quality Test / Release Date	03/19/2019
Lot Number	186122A		
Description	DEXTROSE, ANHYDROUS, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Mar/2022
Chemical Origin	Organic - Plant		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White, granular powder
TITRATABLE ACID	MEQ/G	<= 0.002	<0.002
STARCH		= PASS TEST	pass test
SPECIFIC ROTATION @ 25 C	DEGREES (+ OR -)	Inclusive Between +52.5 - +53.0	53.0
SULFATE & SULFITE	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
CHLORIDE	%	<= 0.01	<0.01
IGNITION RESIDUE	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
HEAVY METALS (as Pb)	ppm	<= 5	<5
LOSS ON DRYING @ 105 C	%	<= 0.2	<0.2
INSOLUBLE MATTER	%	<= 0.005	0.002

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by RB on 7/24/23 E3551

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date:2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

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

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

Recd. by RP on 03/31/25

E3917

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

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

M 6041-46
MS

avantor™ | J.T.Baker®

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

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

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

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

R: 8/19/24 M6069

MACHEREY-NAGEL

Certificate of Analysis

Product information

Product	pH-Fix 0.3-2.3
REF	92180
LOT	80A0441
Expiration date:	29.02.2028
Date of examination:	23.01.2024
Gradation:	pH 0.3-0.7-1.0-1.3-1.6-1.9-2.3

Confirmation

Hereby we confirm, that the above mentioned product has successfully passed our quality control system in accordance with ISO 9001 and meets the specific quality criteria.

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

MACHEREY-NAGEL GmbH & Co. KG
Valencienner Str. 11
52355 Düren · Germany
www.mn-net.com

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CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com
FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com
US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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

avantor™ | J.T.Baker®

M6151

R→ 1/15/25

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

Certificate of Analysis

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

>>> Continued on page 2 >>>

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

avantor™ | J.T.Baker®

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

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

>>> Continued on page 3 >>>

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

avantor™ | J.T.Baker®

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

Test	Specification	Result

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

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

James T Ethier

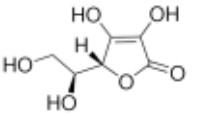
Jamie Ethier
Vice President Global Quality

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

W3074 Rec. on 01/16/24 by IZ

Certificate of Analysis

Product Name:
L-Ascorbic acid - ACS reagent, ≥99%



Product Number:	**255564**
Batch Number:	**MKCS4627**
Brand:	SIAL
CAS Number:	50-81-7
MDL Number:	MFCD00064328
Formula:	C6H8O6
Formula Weight:	176.12 g/mol
Quality Release Date:	21 NOV 2022
Recommended Retest Date:	SEP 2025

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form) Powder, Crystals, Crystalline Powder, Granules and/or Chunks	Conforms to Requirements	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Optical Rotation (+); c = 10%; Water	20.5 - 21.5 deg	20.7 deg
Titration by Iodine	≥ 99.0 %	99.4 %
Residue on Ignition	≤ 0.10 %	0.03 %
Iron (Fe)	≤ 0.001 %	< 0.001 %
Heavy Metals by ICP-OES	≤ 0.002 %	0.001 %
Recommended Retest Period 3 Years	----------	----------
Meets ACS Requirements	Current ACS Specification	Conforms

Larry Coers, Director
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.

RICCA CHEMICAL COMPANY®
W3103 Received on 4/22/24 by IZ

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

Certificate of Analysis

Manganous Sulfate Solution, 364 g/L

Lot Number: 2403J02 **Product Number:** 4620

Manufacture Date: MAR 15, 2024
Expiration Date: MAR 2026

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Manganous Sulfate Monohydrate	10034-96-5	Reagent
Sulfuric Acid	7664-93-9	ACS

Test	Specification	Result
Appearance	Pink liquid	Passed
Assay (by Refractive Index)	360-368 g/L	367 g/L

Specification	Reference
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	EPA (360.2)
Manganous Sulfate Solution	EPA (360.2)

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)
4620-32	1 L natural poly	24 months

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

Jose Pena (03/15/2024)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

RICCA CHEMICAL COMPANY®

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

W3105 Received on 4/22/24 by IZ

Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

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

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

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

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

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

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

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7900-1	4 L natural poly	18 months
7900-16	500 mL natural poly	18 months
7900-1CT	4 L Cubitainer®	18 months
7900-32	1 L natural poly	18 months

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

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

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RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
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customerservice@riccachemical.com

Certificate of Analysis

Alkaline-Iodide-Azide, Pomeroy Formulation for Dissolved Oxygen (DO) Analysis

Lot Number: 1405D67 **Product Number:** 535

Manufacture Date: APR 05, 2024
Expiration Date: APR 2026

This solution is intended for use with samples with high Dissolved Oxygen content (above 15 mg/L) and for samples with high concentrations of organic material.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Iodide	7681-82-5	ACS
Sodium Hydroxide	1310-73-2	ACS
Sodium Azide	26628-22-8	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Free Iodine	To Pass Test	Passed

Specification	Reference
Alkaline Iodide-Sodium Azide Solution II	ASTM (D 888 A)

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)
535-32	1 L natural poly	24 months

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

Heidi J Green (04/05/2024)
Operations Manager

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Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583

Grade: ACS GRADE

Batch Number: 23B1556310

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

Pellets

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

Storage: Room Temperature

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: **0583**

Grade: **ACS GRADE**

Batch Number: **23B1556310**

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

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

spectrum® CHEMICAL MFG CORP

Certificate Of Analysis

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	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[$n[(HOCOCH_2)_3N]$]		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.

Loveland, CO 80539
(970) 669-3050

An ISO 9001 Certified Company

Certificate of Analysis

This is a Component of 1486266 / LOT A4169

PRODUCT: BOD Nutrient Buffer Pillows

PRODUCT NUMBER: 1486227

LOT NUMBER: A4169

MANUFACTURE DATE: 06/24/2024

DATE OF ANALYSIS: 07/03/2024

TEST	SPECIFICATIONS	RESULTS
Calcium Concentration of a diluted pillow	0.93 to 1.29 ppm	0.960 ppm
Magnesium Concentration of a diluted pillow	0.35 to 0.48 ppm	0.390 ppm
pH in a 6 L of DI water	7.1 to 7.6	7.37
Ammonia Concentration of a diluted pillow	0.57 to 0.79 ppm	0.593 ppm
Iron Concentration of a diluted pillow	0.27 to 0.36 ppm	0.311 ppm
Sterility	To Pass	Passed
Phosphorus Concentration of a diluted pillow	7.6 to 10.3 ppm	8.32 ppm
Five Day Change in Dissolved Oxygen Concentration	-0.2 to 0.2 ppm	0.03 ppm

The expiration date is Jun 2029

Certified by: Scott Als

Analytical Services Chemist

RICCA CHEMICAL COMPANY®

W3149 Received on 10/16/24 by IZ

1490 Lammers Pike
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customerservice@riccachemical.com

Certificate of Analysis

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

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

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

This product is Mercury-free.

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

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

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

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8000-1	4 L natural poly	24 months
8000-16	500 mL natural poly	24 months
8000-32	1 L natural poly	24 months

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

Paul Brandon (08/28/2024)
Production Manager

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Certificate of Analysis

Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

Signature

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

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

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

Additional Information

Analysis may have been rounded to significant digits in specification limits

Product meets analytical specifications of the grades listed.

RICCA CHEMICAL COMPANY®

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

Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2501J28 **Product Number:** 7495.5

Manufacture Date: JAN 17, 2025
Expiration Date: JUL 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
7495.5-8	250 mL amber poly	6 months

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

Jose Pena (01/17/2025)
Operations Manager

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W3195 Received on 03/19/2025 by IZ

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	NH4Cl
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

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

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

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

Additional Information

Analysis may have been rounded to significant digits in specification limits

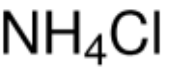
Product meets analytical specifications of the grades listed.

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

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:	H4ClN
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 AgNO3	≥ 99.5 %	100.2 %
pH @ 25 Deg c (5% Solution)	4.5 - 5.5	4.9
Insoluble Matter 10%, H2O	≤ 0.005 %	0.001 %
Residue on ignition (Ash)	≤ 0.01 %	< 0.01 %
Calcium (Ca)	≤ 0.001 %	< 0.001 %
Magnesium (Mg)	≤ 5 ppm	1 ppm
Heavy Metals by ICP	≤ 5 ppm	< 1 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Phosphate (PO4)	≤ 2 ppm	< 2 ppm
Sulfate (SO4)	≤ 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.

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

Certificate of Analysis

Product 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.

W3198 Received on 4/11/2025 by IZ

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

Certificate of Analysis

Product Name:
Potassium phosphate monobasic - ACS reagent, ≥99.0%

KH_2PO_4

Product Number:	**P0662**
Batch Number:	**MKCW6723**
Brand:	SIGALD
CAS Number:	7778-77-0
MDL Number:	MFCD00011401
Formula:	H2KO4P
Formula Weight:	136.09 g/mol
Quality Release Date:	16 OCT 2024
Recommended Retest Date:	OCT 2028

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.8 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying At 105ºC	≤ 0.2 %	< 0.1 %
pH (c = 5%, 25 deg C)	4.1 - 4.5	4.5
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO4)	≤ 0.003 %	< 0.003 %
Heavy Metals by ICP	≤ 0.001 %	< 0.001 %
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period 4 Years	----------	----------

Larry Coers, Director
Quality Control
Milwaukee, WI US

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.

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker

UU3204
OPEN: 04/22/2025
JB

Material No.: 9262-03
Batch No.: 25C0362005
Manufactured Date: 2025-01-29
Expiration Date:2026-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	<= 5	5
Assay (Total Saturated C_6 Isomers) (byGC, corrected for water)	>= 99.5 %	100.0 %
Assay (as n-Hexane) (by GC, correctedfor water)	>= 95 %	100 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	<= 0.05 %	<0.01 %

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

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

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

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

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

Certificate of Analysis

Product Name:
Potassium phosphate monobasic - ACS reagent, ≥99.0%

KH_2PO_4

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

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

Larry Coers, Director
Quality Control
Milwaukee, WI US

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.

N3212 Received on 5/21/25 by 12

POLYSEED®

CERTIFICATE OF ANALYSIS

PO BOX 130549 Spring, TX 77393
Phone: (281) 298-9410 Fax: (281) 298-9411

FINISHED PRODUCT, LOT NUMBER, MFG. /EXP DATE:
PolySeed® • Part No. P-110 • Lot 132409 • Mfg. Date: 09/2024 • Exp. Date: 09/2026

FORMULATION:
The formulation for this product contains a range of naturally occurring microorganisms, which are known to be non-pathogenic to man or animals.

VIABLE COUNT, FINAL TEST RESULT:
The product has been fully tested in accordance with Finished Product Specifications and contains a minimum viable count of 4.00×10^9 cfu/g.

GLUCOSE/GLUTAMIC-ACID RESULTS:
Tested results within acceptable range 198 +/- 30.5 mg/L (167.5 - 228.5 mg/L). GGA Lot# 43100020 – Average Test Result: 202.1

See www.polyseed.com for details.

SEED CONTROL FACTOR:
Tested results within acceptable range 0.6 – 1.0 see www.polyseed.com for details

SALMONELLA TEST RESULT:
The product has been shown to be Salmonella negative using procedures recommended in the Microbiology Laboratory Guidebook, published by the USDA Food Safety and Inspection Service.

The purpose of this document is to ensure that the Finished Product conforms to the above specification.

Signature: _____ **Date**: 09/13/2024

Quality Control Department

POLYSEED.Ref.1.19 Revised Jan 24

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ISO 9002
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REGISTERED FIRM

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

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

ALLIANCE PROJECT NO.
QUOTE NO. Q2309
COC Number 2047130

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: HOLLAND MANUFACTURING CO.
ADDRESS: 15 MAIN ST
CITY SUCCASUNNA STATE: NJ ZIP: 07846
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

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

CLIENT BILLING INFORMATION

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

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1	2	3	4	5	6	7	8	9
BOD5	TSS	O+G	PO4	TOTAL P	NH3			

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								E	E	C	C	C	C				← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER
1.	EFFLUENT	W		X	6/12	1100	6	X	X	X	X	X	X				
2.	AERATION	W		X	6/12	1100	1		X								
3.	INFLUENT	W		X	6/12	1100	2	X					X				
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. EMORTINEZ	6/12/25 1300	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 5.3 °C
Comments: LAB TO FILTER

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other _____

Shipment Complete ☐ YES ☐ NO

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

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

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148