

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

LAB CHRONICLE

OrderID:	P4490	OrderDate:	10/22/2024 2:18:00 PM
Client:	Holland Manufacturing Co.	Project:	Pre Treatment Plant
Contact:	Todd Holland	Location:	K11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4490-01	EFFLUENT	WATER			10/22/24 12:00			10/22/24
			Ammonia	SM4500-NH3		10/28/24	10/28/24 13:42	
			BOD5	SM5210 B			10/23/24 17:40	
			Oil and Grease	1664A			10/28/24 10:25	
			Phosphorus-Ortho	SM4500-P E			10/23/24 10:07	
			Phosphorus-Total	365.3		10/23/24	10/23/24 11:07	
			TSS	SM2540 D			10/22/24 15:00	
P4490-01DL	EFFLUENTDL	WATER			10/22/24 12:00			10/22/24
			Ammonia	SM4500-NH3		10/28/24	10/28/24 14:41	
P4490-04	AERATION-TK-1	WATER			10/22/24 12:00			10/22/24
			TSS	SM2540 D			10/22/24 15:00	
P4490-05	INFLUENT	WATER			10/22/24 12:00			10/22/24
			Ammonia	SM4500-NH3		10/28/24	10/28/24 13:42	
			BOD5	SM5210 B			10/23/24 17:40	

LAB CHRONICLE

P4490-05DL

INFLUENTDL

WATER

**10/22/24
12:00**

10/22/24

Ammonia

SM4500-NH3

10/28/24

10/28/24
14:41



SAMPLE DATA

Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	10/22/24 12:00
Project:	Pre Treatment Plant	Date Received:	10/22/24
Client Sample ID:	EFFLUENT	SDG No.:	P4490
Lab Sample ID:	P4490-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	733	OR	1	2.30	5.00	mg/L	10/28/24 08:40	10/28/24 13:42	SM 4500-NH3 B plus G-11
BOD5	1520		1	0.17	2.00	mg/L		10/23/24 17:40	SM 5210 B-16
Oil and Grease	61.1		1	0.40	5.00	mg/L		10/28/24 10:25	1664A
Orthophosphate as P	0.15		1	0.0040	0.050	mg/L		10/23/24 10:07	SM 4500-P E-11
Phosphorus, Total	0.24		1	0.0050	0.050	mg/L	10/23/24 09:00	10/23/24 11:07	365.3
TSS	8010		1	1.00	4.00	mg/L		10/22/24 15:00	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

Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	10/22/24 12:00
Project:	Pre Treatment Plant	Date Received:	10/22/24
Client Sample ID:	EFFLUENTDL	SDG No.:	P4490
Lab Sample ID:	P4490-01DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	856	D	10	22.5	50.0	mg/L	10/28/24 08:40	10/28/24 14:41	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

Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	10/22/24 12:00
Project:	Pre Treatment Plant	Date Received:	10/22/24
Client Sample ID:	AERATION-TK-1	SDG No.:	P4490
Lab Sample ID:	P4490-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	5290		1	1.00	4.00	mg/L		10/22/24 15:00	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

Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	10/22/24 12:00
Project:	Pre Treatment Plant	Date Received:	10/22/24
Client Sample ID:	INFLUENT	SDG No.:	P4490
Lab Sample ID:	P4490-05	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	331	OR	1	2.30	5.00	mg/L	10/28/24 08:40	10/28/24 13:42	SM 4500-NH3 B plus G-11
BOD5	10100		1	0.17	2.00	mg/L		10/23/24 17:40	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

Report of Analysis

Client:	Holland Manufacturing Co.	Date Collected:	10/22/24 12:00
Project:	Pre Treatment Plant	Date Received:	10/22/24
Client Sample ID:	INFLUENTDL	SDG No.:	P4490
Lab Sample ID:	P4490-05DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	369	D	5	11.3	25.0	mg/L	10/28/24 08:40	10/28/24 14:41	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



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

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133071

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Phosphorus, Total	mg/L	0.500	0.50	100	90-110	10/23/2024
Sample ID: CCV1 Phosphorus, Total	mg/L	0.501	0.50	100	90-110	10/23/2024
Sample ID: CCV2 Phosphorus, Total	mg/L	0.501	0.50	100	90-110	10/23/2024

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133073

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Orthophosphate as P	mg/L	0.500	0.50	100	90-110	10/23/2024
Sample ID: CCV1 Orthophosphate as P	mg/L	0.502	0.5	100	90-110	10/23/2024
Sample ID: CCV2 Orthophosphate as P	mg/L	0.502	0.5	100	90-110	10/23/2024

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133173

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1.1	1	110	90-110	10/28/2024
Sample ID: CCV1 Ammonia as N	mg/L	0.99	1	99	90-110	10/28/2024
Sample ID: CCV2 Ammonia as N	mg/L	1	1	100	90-110	10/28/2024
Sample ID: CCV3 Ammonia as N	mg/L	1.1	1	110	90-110	10/28/2024
Sample ID: CCV4 Ammonia as N	mg/L	1.1	1	110	90-110	10/28/2024



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

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133071

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Phosphorus, Total	mg/L	< 0.0250	0.0250	U	0.0047	0.05	10/23/2024
Sample ID: CCB1 Phosphorus, Total	mg/L	< 0.0250	0.0250	U	0.0047	0.05	10/23/2024
Sample ID: CCB2 Phosphorus, Total	mg/L	< 0.0250	0.0250	U	0.0047	0.05	10/23/2024

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133073

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Orthophosphate as P	mg/L	< 0.0250	0.0250	U	0.0040	0.05	10/23/2024
Sample ID: CCB1 Orthophosphate as P	mg/L	< 0.0250	0.0250	U	0.0040	0.05	10/23/2024
Sample ID: CCB2 Orthophosphate as P	mg/L	< 0.0250	0.0250	U	0.0040	0.05	10/23/2024

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

RunNo.: LB133173

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024

Preparation Blank Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB133064BL TSS	mg/L	1	2.0000	J	1	4	10/22/2024
Sample ID: LB133073BL Orthophosphate as P	mg/L	< 0.0250	0.0250	U	0.004	0.05	10/23/2024
Sample ID: LB133080BL BOD5	mg/L	< 0.2000	0.2000	U	0.17	2.0	10/23/2024
Sample ID: LB133159BL Oil and Grease	mg/L	< 2.5000	2.5000	U	0.4	5.0	10/28/2024
Sample ID: PB164344BL Phosphorus, Total	mg/L	< 0.0250	0.0250	U	0.005	0.05	10/23/2024
Sample ID: PB164383BL Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	10/28/2024
Sample ID: PB164463BL Ammonia as N	mg/Kg	< 2.5000	2.5000	U	0.9	5	10/28/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4490-01
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	0.81		0.15		0.5	1	132	*	10/23/2024
Phosphorus, Total	mg/L	90-110	0.87		0.24		0.5	1	127	*	10/23/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4490-01
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	0.81		0.15		0.5	1	131	*	10/23/2024
Phosphorus, Total	mg/L	90-110	0.88		0.24		0.5	1	128	*	10/23/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4490-01
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	80.8		61.1		20.0	1	98		10/28/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4490-01
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	81.0		61.1		20.0	1	100		10/28/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4548-01
Client ID:	MW-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
Ammonia as N	mg/L	75-125	0.98		0.045	U	1	1	98		10/28/2024

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4548-01
Client ID:	MW-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
Ammonia as N	mg/L	75-125	0.99		0.045	U	1	1	99		10/28/2024

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4464-02
Client ID:	002-35TH-AVE(SEP)DUP	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	179		175		1	2.26		10/22/2024

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: P4490
Project: Pre Treatment Plant	Sample ID: P4490-01
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
Phosphorus, Total	mg/L	+/-20	0.24		0.24		1	1.68		10/23/2024
Orthophosphate as P	mg/L	+/-20	0.15		0.15		1	1.97		10/23/2024
BOD5	mg/L	+/-20	1520		1620		1	6.21		10/23/2024

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: P4490
Project: Pre Treatment Plant	Sample ID: P4490-01
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
Phosphorus, Total	mg/L	+/-20	0.87		0.88		1	0.57		10/23/2024
Orthophosphate as P	mg/L	+/-20	0.81		0.81		1	0.49		10/23/2024

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4490-01
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	80.8		81.0		1	0.25		10/28/2024

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: P4490
Project: Pre Treatment Plant	Sample ID: P4548-01
Client ID: MW-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
Ammonia as N	mg/L	+/-20	0.045	U	0.045	U	1	0		10/28/2024

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	P4490
Project:	Pre Treatment Plant	Sample ID:	P4548-01
Client ID:	MW-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
Ammonia as N	mg/L	+/-20	0.98		0.99		1	1		10/28/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133064

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133064BS							
TSS	mg/L	550	532		97	1	90-110	10/22/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133073

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133073BS							
Orthophosphate as P	mg/L	0.5	0.50		100	1	90-110	10/23/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133080

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133080BS							
BOD5	mg/L	198	192		97	1	84.6-115.4	10/23/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133159

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133159BS							
Oil and Grease	mg/L	20.0	16.7		84	1	78-114	10/28/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133071

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB164344BS							
Phosphorus, Total	mg/L	0.50	0.50		100	1	90-110	10/23/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133173

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB164383BS							
Ammonia as N	mg/L	1	1.00		100	1	90-110	10/28/2024

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: P4490

Project: Pre Treatment Plant

Run No.: LB133173

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB164463BS							
Ammonia as N	mg/Kg	50	50.4		101	1	90-110	10/28/2024



RAW DATA



TOTAL SUSPENDED SOLIDS - SM2540D

TEMP1 IN:	103 °C	10/21/2024	14:00	TEMP1 OUT:	104 °C	10/21/2024	15:00
TEMP2 IN:	103 °C	10/21/2024	15:30	TEMP2 OUT:	104 °C	10/21/2024	16:30
TEMP3 IN:	104 °C	10/22/2024	15:00	TEMP3 OUT:	103 °C	10/22/2024	16:30
TEMP4 IN:	104 °C	10/22/2024	17:00	TEMP4 OUT:	103 °C	10/22/2024	18:30

SUPERVISOR:	Iwona
ANALYST:	jignesh
Date:	10/21/2024
Run Number:	LB133064
BalanceID:	WC SC-6
OvenID:	WC OVEN-1
FilterID:	17416528
ThermometerID:	WET OVEN#1

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	LB133064BL	LB133064BL	1.3556	1.3556	100	1.3557	1.3557	1.3557	0.0001	1
2	LB133064BS	LB133064BS	1.3658	1.3658	100	1.4190	1.4190	1.4190	0.0532	532
3	P4446-01	MC0JT7	1.4023	1.4023	1000	1.4036	1.4036	1.4036	0.0013	1.3
4	P4446-02	MC0JT8	1.4215	1.4215	100	1.4224	1.4224	1.4224	0.0009	9
5	P4446-03	MC0JW0	1.4164	1.4164	1000	1.4189	1.4189	1.4189	0.0025	2.5
6	P4446-04	MC0JW1	1.4311	1.4311	1000	1.4814	1.4814	1.4814	0.0503	50.3
7	P4446-05	MC0JW2	1.4086	1.4086	1000	1.4101	1.4101	1.4101	0.0015	1.5
8	P4446-06	MC0JW3	1.4038	1.4038	1000	1.4231	1.4231	1.4231	0.0193	19.3
9	P4446-07	MC0JW4	1.4124	1.4124	1000	1.4248	1.4248	1.4248	0.0124	12.4
10	P4447-01	MC0JS9	1.4191	1.4191	1000	1.4243	1.4243	1.4243	0.0052	5.2
11	P4447-02	MC0JT0	1.4153	1.4153	1000	1.4174	1.4174	1.4174	0.0021	2.1
12	P4447-03	MC0JT2	1.4110	1.4110	1000	1.4133	1.4133	1.4133	0.0023	2.3
13	P4447-04	MC0JT3	1.4393	1.4393	1000	1.4470	1.4470	1.4470	0.0077	7.7
14	P4447-05	MC0JT4	1.4193	1.4193	1000	1.4265	1.4265	1.4265	0.0072	7.2
15	P4447-06	MC0JT6	1.4211	1.4211	1000	1.4256	1.4256	1.4256	0.0045	4.5



TOTAL SUSPENDED SOLIDS - SM2540D

TEMP1 IN:	103 °C	10/21/2024	14:00	TEMP1 OUT:	104 °C	10/21/2024	15:00
TEMP2 IN:	103 °C	10/21/2024	15:30	TEMP2 OUT:	104 °C	10/21/2024	16:30
TEMP3 IN:	104 °C	10/22/2024	15:00	TEMP3 OUT:	103 °C	10/22/2024	16:30
TEMP4 IN:	104 °C	10/22/2024	17:00	TEMP4 OUT:	103 °C	10/22/2024	18:30

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 10/21/2024

Run Number: LB133064

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

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	P4447-07	MC0JW5	1.4290	1.4290	1000	1.4326	1.4326	1.4326	0.0036	3.6
17	P4463-01	001-WILLETTS-PT-BLVD (OCT)	1.4156	1.4156	100	1.4316	1.4316	1.4316	0.0160	160
18	P4463-02	002-35TH-AVE (OCT)	1.4043	1.4043	100	1.4212	1.4212	1.4212	0.0169	169
19	P4464-01	001-WILLETTS-PT-BLVD (SEP)	1.4036	1.4036	100	1.4196	1.4196	1.4196	0.0160	160
20	P4464-02	002-35TH-AVE (SEP)	1.4335	1.4335	100	1.4514	1.4514	1.4514	0.0179	179
21	P4464-02DUP	002-35TH-AVE (SEP) DUP	1.3906	1.3906	100	1.4081	1.4081	1.4081	0.0175	175
22	P4490-01	EFFLUENT	1.4085	1.4085	10	1.4886	1.4886	1.4886	0.0801	8010
23	P4490-04	AERATION-TK-1	1.4157	1.4157	10	1.4686	1.4686	1.4686	0.0529	5290

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 =

D

 * 1000 * 1000

A

WORKLIST(Hardcopy Internal Chain)

W3 133064

Inst Name : tss p4490 WorkList ID : 184673 Department : Wet-Chemistry Date : 10-23-2024 08:03:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4446-01	MCOJT7	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-02	MCOJT8	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-03	MCOJW0	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-04	MCOJW1	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-05	MCOJW2	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-06	MCOJW3	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4446-07	MCOJW4	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-01	MCOJS9	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-02	MCOJTO	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-03	MCOJT2	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-04	MCOJT3	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-05	MCOJT4	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-06	MCOJT6	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4447-07	MCOJW5	Water	TSS	Cool 4 deg C	TETR16	K51	10/15/2024	SM2540 D
P4463-01	001-WILLETS-PT-BLVD(OCT)	Water	TSS	Cool 4 deg C	TULL01	K51	10/17/2024	SM2540 D
P4463-02	002-35TH-AVE(OCT)	Water	TSS	Cool 4 deg C	TULL01	K51	10/17/2024	SM2540 D
P4464-01	001-WILLETS-PT-BLVD(SEP)	Water	TSS	Cool 4 deg C	TULL01	K41	10/17/2024	SM2540 D
P4464-02	002-35TH-AVE(SEP)	Water	TSS	Cool 4 deg C	TULL01	K41	10/17/2024	SM2540 D
P4490-01	EFFLUENT	Water	TSS	Cool 4 deg C	HOLL01	K11	10/22/2024	SM2540 D
P4490-04	AERATION-TK-1	Water	TSS	Cool 4 deg C	HOLL01	K11	10/22/2024	SM2540 D

10/22/2024

Date/Time 10/22/2024 08:15

Raw Sample Received by: RL WCL

Raw Sample Relinquished by: CP Sm

10/22/2024

Date/Time 10/22/2024 13:00

Raw Sample Received by: CP Sm

Raw Sample Relinquished by: RL WCL

Analysis Method: 365.3

Parameter: Phosphorus-Total

Run Number: LB133071

ANALYST: Niha

SUPERVISOR REVIEW BY: Iwona

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP110358
calibration std. phosphate 0.5 ppm	WP110357
calibration std. phosphate 0.3 ppm	WP110356
calibration std. phosphate 0.1 ppm	WP110355
calibration std. phosphate 0.05 ppm	WP110354
calibration std. 0 ppm	WP110353
phosphate CCV std.	WP110359
Combined reagent	WP110362
Phenolphthalein indicator	WP108727
Sodium hydroxide, 1N	WP108662
Phosphosphate LOQ std, 0.05PPM	WP110365
Phosphate ICV-LCS Std	WP110360
Phosphate LOD-MDL Std 0.025ppm	WP110364

Intercept: -0.0015

Slope: 0.6491

Regression: 0.999818

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	0.002		10/23/2024	11:00
2	CAL2	0.05	1	50	50	0.033	0.053	6	10/23/2024	11:00
3	CAL3	0.10	1	50	50	0.067	0.106	6	10/23/2024	11:01
4	CAL4	0.30	1	50	50	0.184	0.286	-4.7	10/23/2024	11:01
5	CAL5	0.50	1	50	50	0.323	0.5	0	10/23/2024	11:02
6	CAL6	1.00	1	50	50	0.650	1.004	0.4	10/23/2024	11:02

Analysis Method: 365.3

ANALYST: Niha

Parameter: Phosphorus-Total

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133071

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	0.323	0.500	10/23/2024	11:03
2	ICB		1	50	50	0.000	0.002	10/23/2024	11:03
3	CCV1	0.50	1	50	50	0.324	0.501	10/23/2024	11:04
4	CCB1		1	50	50	0.000	0.002	10/23/2024	11:04
5	RL Check	0.01	1	50	50	0.032	0.052	10/23/2024	11:05
6	PB164344BL		1	50	50	0.000	0.002	10/23/2024	11:05
7	PB164344BS	0.50	1	50	50	0.324	0.501	10/23/2024	11:06
8	P4368-07		1	50	50	0.015	0.025	10/23/2024	11:06
9	P4368-08		1	50	50	0.032	0.052	10/23/2024	11:07
10	P4490-01		1	50	50	0.152	0.236	10/23/2024	11:07
11	P4490-01DUP		1	50	50	0.154	0.240	10/23/2024	11:08
12	P4490-01MS	0.50	1	50	50	0.564	0.871	10/23/2024	11:08
13	P4490-01MSD	0.50	1	50	50	0.567	0.876	10/23/2024	11:09
14	CCV2	0.50	1	50	50	0.324	0.501	10/23/2024	11:09
15	CCB2		1	50	50	0.000	0.002	10/23/2024	11:10

Analysis Method: SM4500-P E

ANALYST: Niha

Parameter: Phosphorus-Ortho

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133073

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP110358
calibration std. phosphate 0.5 ppm	WP110357
calibration std. phosphate 0.3 ppm	WP110356
calibration std. phosphate 0.1 ppm	WP110355
calibration std. phosphate 0.05 ppm	WP110354
calibration std. 0 ppm	WP110353
phosphate CCV std.	WP110359
5N sulfuric acid	WP107791
Combined reagent	WP110362
Phenolphthalein indicator	WP108727
Sodium hydroxide, 1N	WP108662
Phosphosphate LOQ std, 0.05PPM	WP110365
Phosphate ICV-LCS Std	WP110360
Phosphate LOD-MDL Std 0.025ppm	WP110364

Intercept: -0.0021

Slope: 0.6501

Regression: 0.999871

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	0.003		10/23/2024	10:00
2	CAL2	0.05	1	50	50	0.032	0.052	4	10/23/2024	10:00
3	CAL3	0.10	1	50	50	0.065	0.103	3	10/23/2024	10:01
4	CAL4	0.30	1	50	50	0.185	0.288	-4	10/23/2024	10:01
5	CAL5	0.50	1	50	50	0.323	0.5	0	10/23/2024	10:02
6	CAL6	1.00	1	50	50	0.650	1.003	0.3	10/23/2024	10:02

Analysis Method: SM4500-P E

ANALYST: Niha

Parameter: Phosphorus-Ortho

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133073

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	0.323	0.500	10/23/2024	10:03
2	ICB		1	50	50	0.000	0.003	10/23/2024	10:03
3	CCV1	0.5	1	50	50	0.324	0.502	10/23/2024	10:04
4	CCB1		1	50	50	0.000	0.003	10/23/2024	10:04
5	RL Check	0.01	1	50	50	0.033	0.054	10/23/2024	10:05
6	LB133073BL		1	50	50	0.000	0.003	10/23/2024	10:05
7	LB133073BS	0.5	1	50	50	0.324	0.502	10/23/2024	10:06
8	P4368-07		1	50	50	0.015	0.026	10/23/2024	10:06
9	P4368-08		1	50	50	0.032	0.052	10/23/2024	10:07
10	P4490-01		1	50	50	0.096	0.151	10/23/2024	10:07
11	P4490-01DUP		1	50	50	0.098	0.154	10/23/2024	10:08
12	P4490-01MS	0.5	1	50	50	0.526	0.812	10/23/2024	10:08
13	P4490-01MSD	0.5	1	50	50	0.523	0.808	10/23/2024	10:09
14	CCV2	0.5	1	50	50	0.324	0.502	10/23/2024	10:09
15	CCB2		1	50	50	0.000	0.003	10/23/2024	10:10

WORKLIST(Hardcopy Internal Chain)

LB133073

WorkList Name : ORTHO-P-10232024

WorkList ID : 184680

Department : Wet-Chemistry

Date : 10-23-2024 08:34:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4368-07	LOD-MDL-WATER-01-QT4-202	Water	Phosphorus-Ortho	Cool 4 deg C	CHEM02	QA Of	10/09/2024	SM4500-P E
P4368-08	LOQ-WATER-02-QT4-2024	Water	Phosphorus-Ortho	Cool 4 deg C	CHEM02	QA Of	10/09/2024	SM4500-P E
P4490-01	EFFLUENT	Water	Phosphorus-Ortho	Cool 4 deg C	HOLL01	K11	10/22/2024	SM4500-P E

Date/Time 10.23.2024, 08:40
Raw Sample Received by: NP(WC)
Raw Sample Relinquished by: NP(WC)

Date/Time 10.23.2024, 12:00
Raw Sample Received by: NP(WC)
Raw Sample Relinquished by: NP(WC)

BOD5 LOG

ANALYST: rubin

SUPERVISOR: Iwona

Analysis Date: 10/23/2024

MANGANOUS SULFATE SOLUTION: W3103

Alkaline Iodide Azide: W3109

Sodium Thiosulfate, 0.025N: W3105

NaOH, 1N: WP108662

IncubatorID: INCUBATOR #3

GuageID: 0511062

Zero DO: WP110006

QC BATCH ID: LB133080

BOD Water: WP110376

Starch: W3149

Sulfuric acid, 1N: WP108475

POLYSEED: WP110378

GGA: WP110377

Chlorine Strips: W2965

pH Strips: W3104

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading (ML)	Final Reading (ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	9.4	9.4	9.4
WINKLER 2	WINKLER 2	2	300	9.2	18.6	9.4	9.4

Meter Calibration1: 9.07 Zero DO Reading1: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure1: 765 mmHg DO Meter BOD fluid reading for winkler comparison: 9.47

After Incubation

Meter Calibration2: 9.35 Zero DO Reading2: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure2: 781 mmHg



QC BATCH ID: LB133080

INCUBATOR TEMP IN(C): 20.1

INCUBATOR TEMP OUT(C): 20.1

TIME IN: 17:40

TIME OUT: 13:00

DATE IN: 10/23/2024

DATE OUT: 10/28/2024

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
LB133080BL	1	No	6.72	N/A	20.30	300	9.46	9.44	0.02	0.02	0.02	
POLYSEED	1					10	9.45	7.40	2.05	0.41	0.5	
POLYSEED	2					15	9.42	5.28	4.14	0.55		
POLYSEED	3					20	9.40	4.01	5.39	0.54		
GGA	1					6	9.45	5.20	4.25	187.5	191.67	
GGA	2					6	9.45	5.11	4.34	192		
GGA	3					6	9.43	5.02	4.41	195.5		
P4490-01	1	No	8.46	7.19	20.00	0.5	9.43	6.53	2.9	1440	1522.5	pH Adjusted
P4490-01	2					1	9.38	3.53	5.85	1605		
P4490-01	3					2	9.25	0.67	-	0		
P4490-01	4					5	8.89	0.45	-	0		
P4490-01	5					10	7.99	0.42	-	0		
P4490-01DUP	1	No	8.46	7.19	20.00	0.5	9.44	6.28	3.16	1596	1620	pH Adjusted
P4490-01DUP	2					1	9.38	3.40	5.98	1644		
P4490-01DUP	3					2	9.24	0.52	-	0		
P4490-01DUP	4					5	8.86	0.49	-	0		
P4490-01DUP	5					10	8.01	0.40	-	0		
P4490-05	1	No	4.61	6.98	20.00	0.01	9.44	8.86	-	0	10050	pH Adjusted
P4490-05	2					0.05	9.38	7.71	-	0		
P4490-05	3					0.1	9.30	5.45	3.85	10050		
P4490-05	4					0.5	9.24	0.49	-	0		
P4490-05	5					1	8.77	0.42	-	0		
P4491-02	1	No	6.45	6.92	20.00	0.5	9.45	8.61	-	0	530.83	pH Adjusted
P4491-02	2					1	9.41	6.57	2.84	702		
P4491-02	3					2	9.28	6.23	3.05	382.5		
P4491-02	4					3	9.21	3.63	5.58	508		

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)

LB133080

WorkList Name : BOD5-10-23

WorkList ID : 184714

Department : Wet-Chemistry

Date : 10-23-2024 12:22:46

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4490-01	EFFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	K11	10/22/2024	SM5210 B
P4490-05	INFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	K11	10/22/2024	SM5210 B
P4491-02	COMP	Water	BOD5	Cool 4 deg C	ARAM01	K11	10/23/2024	SM5210 B

Date/Time 10/23/2024 15:35
 Raw Sample Received by: RM cwc
 Raw Sample Relinquished by: R Lee DC

Date/Time 10/23/2024 17:00
 Raw Sample Received by: RM cwc
 Raw Sample Relinquished by: R Lee DC

Extraction and Analytical Summary Report

Analysis Method: 1664A

Test: Oil and Grease

Run Number: LB133159

Analysis Date: 10/28/2024

BalanceID: WC SC-6

OvenID: EXT OVEN-3

ANALYST: jignesh

REVIEWED BY: Iwona

Extraction Date: 10/28/2024

Extraction IN Time: 08:11

Extraction OUT Time: 09:14

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	LB133159BL	LB133159BL	WATER	1.3	1000	100	3.2552	3.2552	0	3.2553	3.2553	0.0001	0.1
2	LB133159BS	LB133159BS	WATER	1.3	1000	100	3.1478	3.1478	0	3.1645	3.1645	0.0167	16.7
3	P4490-01	EFFLUENT	WATER	1.6	1000	100	3.0885	3.0885	0	3.1496	3.1496	0.0611	61.1
4	P4490-02	P4490-01MS	WATER	1.6	1000	100	2.9036	2.9036	0	2.9844	2.9844	0.0808	80.8
5	P4490-03	P4490-01MSD	WATER	1.6	1000	100	3.1474	3.1474	0	3.2284	3.2284	0.0810	81
6	P4503-01	C0JX3	WATER	1.3	1000	100	2.8744	2.8744	0	2.8746	2.8746	0.0002	0.2
7	P4503-02	C0JX4	WATER	1.3	1000	100	2.3166	2.3166	0	2.3169	2.3169	0.0003	0.3
8	P4503-03	C0JX5	WATER	1.3	1000	100	2.8506	2.8506	0	2.8508	2.8508	0.0002	0.2
9	P4503-04	C0JX6	WATER	1.3	1000	100	3.1587	3.1587	0	3.1590	3.1590	0.0003	0.3
10	P4503-05	C0JX7	WATER	1.3	1000	100	2.8052	2.8052	0	2.8054	2.8054	0.0002	0.2
11	P4503-06	C0JX8	WATER	1.3	1000	100	2.4163	2.4163	0	2.4165	2.4165	0.0002	0.2
12	P4503-07	C0JX9	WATER	1.3	1000	100	2.7844	2.7844	0	2.7847	2.7847	0.0003	0.3
13	P4503-08	C0JY0	WATER	1.3	1000	100	2.3011	2.3011	0	2.3014	2.3014	0.0003	0.3
14	P4504-01	C0JW6	WATER	1.3	1000	100	3.0778	3.0778	0	3.0780	3.0780	0.0002	0.2
15	P4504-02	C0JW7	WATER	1.3	1000	100	3.1559	3.1559	0	3.1561	3.1561	0.0002	0.2
16	P4504-03	C0JW8	WATER	1.3	1000	100	2.8607	2.8607	0	2.8609	2.8609	0.0002	0.2
17	P4504-04	C0JW9	WATER	1.3	1000	100	2.9633	2.9633	0	2.9635	2.9635	0.0002	0.2
18	P4504-05	C0JX0	WATER	1.3	1000	100	3.1784	3.1784	0	3.1787	3.1787	0.0003	0.3
19	P4504-06	C0JX1	WATER	1.3	1000	100	2.9888	2.9888	0	2.9891	2.9891	0.0003	0.3
20	P4504-07	C0JX2	WATER	1.3	1000	100	3.1307	3.1307	0	3.1308	3.1308	0.0001	0.1



Alliance
TECHNICAL GROUP

Test: Oil and Grease

Analysis Date: 10/28/2024

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3110
pH Paper 0-14	M6069
Sodium Sulfate	EP2554
1:1 HCL	WP108566
Silica Gel	NA
Sand	NA

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP108567
LCSWD	NA	NA
MS/MSD	2.5 ML	WP108568

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 11:36

1.0000 gram Balance: 1.0003 (0.9950-1.0050) In Time1: 10:25

Bal Check Time: 08:30 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 12:15

Out Time1: 11:35

After Analysis

0.0020 gram Balance: 0.002 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 13:16

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time2: 12:40

Bal Check Time: 14:11 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 14:10

Out Time2: 13:15

WORKLIST(Hardcopy Internal Chain)

UB133159

WorkList Name : oil & grease p4490

WorkList ID : 184845

Department : Wet-Chemistry

Date : 10-28-2024 07:53:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4490-01	EFFLUENT	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	1664A
P4490-02	P4490-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	1664A
P4490-03	P4490-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	1664A
P4503-01	C0JX3	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-02	C0JX4	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-03	C0JX5	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-04	C0JX6	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-05	C0JX7	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-06	C0JX8	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-07	C0JX9	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4503-08	C0JY0	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-01	C0JW6	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-02	C0JW7	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-03	C0JW8	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-04	C0JW9	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-05	C0JX0	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-06	C0JX1	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
P4504-07	C0JX2	Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A

Date/Time 10/28/24 08:10:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 10/28/24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

LB133173

Test results

Aquakem 7.2AQ1

Page:

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

Reviewed by : RM

Instrument ID : Konelab

10/28/2024 14:46

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.063	0.0	0.143	
ICB1	0.004	0.0	0.028	
CCV1	0.991	0.0	0.135	
CCB1	0.002	0.0	0.028	
RL CHECK	0.102	0.0	0.039	
PB164383BL	0.009	0.0	0.029	
PB164383BS	1.018	0.0	0.138	
P4368-09	0.093	0.0	0.038	
P4490-01	14.669	0.0	1.622	Test limit high
P4490-05	6.626	0.0	0.748	Test limit high
P4548-01	0.031	0.0	0.031	
P4548-01DUP	0.017	0.0	0.029	
P4548-01MS	0.984	0.0	0.135	
P4548-01MSD	0.994	0.0	0.136	
CCV2	1.034	0.0	0.140	
CCB2	0.007	0.0	0.028	
P4548-03	10.126	0.0	1.128	Test limit high
P4548-05	5.388	0.0	0.613	Test limit high
P4548-07	5.257	0.0	0.599	Test limit high
PB164463BL	0.003	0.0	0.028	
PB164463BS	1.008	0.0	0.137	
P4368-03	0.090	0.0	0.037	
CCV3	1.096	0.0	0.147	
CCB3	0.015	0.0	0.029	
P4490-01DLX10	1.711	0.0	0.214	
P4490-05DLX5	1.476	0.0	0.188	
P4548-03DLX10	1.201	0.0	0.158	
P4548-05DLX5	1.174	0.0	0.155	
P4548-07DLX5	1.157	0.0	0.153	
CCV4	1.054	0.0	0.142	
CCB4	0.009	0.0	0.029	
N	31			
Mean	1.884			
SD	3.3017			
CV%	175.23			

102% (50-150)

10/28/2024
RM

10/28/2024
RM

Aquakem v. 7.2AQ1

Results from time period:

Mon Oct 28 12:51:26 2024

Mon Oct 28 14:41:59 2024

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-† P		-0.0053	mg/l	10/28/2024 12:51:26	
0.1PPM	A	Ammonia-† P		0.0952	mg/l	10/28/2024 12:51:27	
0.2PPM	A	Ammonia-† P		0.2032	mg/l	10/28/2024 12:51:28	
0.4PPM	A	Ammonia-† P		0.3949	mg/l	10/28/2024 12:51:29	
1.0PPM	A	Ammonia-† P		1.0235	mg/l	10/28/2024 12:51:30	
1.3PPM	A	Ammonia-† P		1.3314	mg/l	10/28/2024 12:51:31	
2.0PPM	A	Ammonia-† P		1.9905	mg/l	10/28/2024 12:51:32	
ICV1	S	Ammonia-† P		1.0626	mg/l	10/28/2024 13:31:52	
ICB1	S	Ammonia-† P		0.0041	mg/l	10/28/2024 13:31:53	
CCV1	S	Ammonia-† P		0.9915	mg/l	10/28/2024 13:31:55	
CCB1	S	Ammonia-† P		0.0018	mg/l	10/28/2024 13:31:57	
RL CHECK	S	Ammonia-† P		0.102	mg/l	10/28/2024 13:31:59	
PB164383BL	S	Ammonia-† P		0.0088	mg/l	10/28/2024 13:32:02	
PB164383BS	S	Ammonia-† P		1.0184	mg/l	10/28/2024 13:42:35	
P4368-09	S	Ammonia-† P		0.093	mg/l	10/28/2024 13:42:37	
P4490-01	S	Ammonia-† P		14.6687	mg/l	10/28/2024 13:42:40	
P4490-05	S	Ammonia-† P		6.6264	mg/l	10/28/2024 13:42:43	
P4548-01	S	Ammonia-† P		0.031	mg/l	10/28/2024 13:42:45	
P4548-01DUP	S	Ammonia-† P		0.0168	mg/l	10/28/2024 13:42:46	
P4548-01MS	S	Ammonia-† P		0.9841	mg/l	10/28/2024 13:53:17	
P4548-01MSD	S	Ammonia-† P		0.9939	mg/l	10/28/2024 13:53:18	
CCV2	S	Ammonia-† P		1.0335	mg/l	10/28/2024 13:53:19	
CCB2	S	Ammonia-† P		0.0069	mg/l	10/28/2024 13:53:21	
P4548-03	S	Ammonia-† P		10.1265	mg/l	10/28/2024 13:53:23	
P4548-05	S	Ammonia-† P		5.3879	mg/l	10/28/2024 13:53:24	
P4548-07	S	Ammonia-† P		5.2574	mg/l	10/28/2024 13:53:25	
PB164463BL	S	Ammonia-† P		0.0034	mg/l	10/28/2024 13:53:27	
PB164463BS	S	Ammonia-† P		1.0079	mg/l	10/28/2024 13:53:28	
P4368-03	S	Ammonia-† P		0.0904	mg/l	10/28/2024 14:01:08	
CCV3	S	Ammonia-† P		1.0964	mg/l	10/28/2024 14:01:09	
CCB3	S	Ammonia-† P		0.0153	mg/l	10/28/2024 14:01:11	
P4490-01DLX10	S	Ammonia-† P		1.7112	mg/l	10/28/2024 14:41:50	
P4490-05DLX5	S	Ammonia-† P		1.4761	mg/l	10/28/2024 14:41:51	
P4548-03DLX10	S	Ammonia-† P		1.2007	mg/l	10/28/2024 14:41:52	
P4548-05DLX5	S	Ammonia-† P		1.1744	mg/l	10/28/2024 14:41:53	
P4548-07DLX5	S	Ammonia-† P		1.157	mg/l	10/28/2024 14:41:55	
CCV4	S	Ammonia-† P		1.0544	mg/l	10/28/2024 14:41:56	
CCB4	S	Ammonia-† P		0.0088	mg/l	10/28/2024 14:41:58	

=====
Calibration results Aquakem 7.2AQ1 Page: 1

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

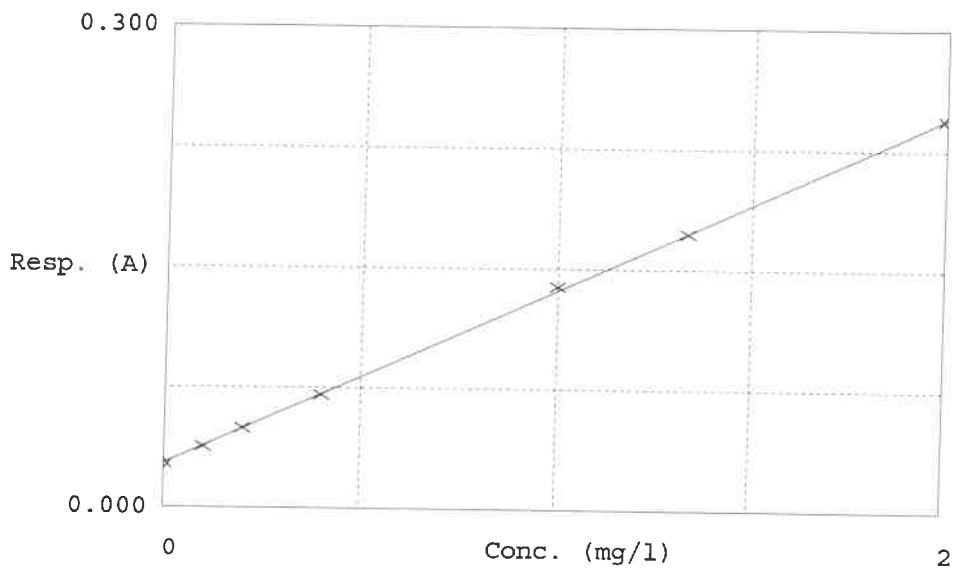
10/28/2024 12:57 Reviewed by : RM Instrument ID : Konelab

Test Ammonia-N

Accepted 10/28/2024 12:57
Factor 9.202
Bias 0.028

Coeff. of det. 0.999783

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.027	-0.0053	0.0000	-
2	NH3-2PPM	0.038	0.0952	0.1000	-4.8
3	NH3-2PPM	0.050	0.2032	0.2000	1.6
4	NH3-2PPM	0.071	0.3949	0.4000	-1.3
5	NH3-2PPM	0.139	1.0235	1.0000	2.4
6	NH3-2PPM	0.172	1.3314	1.3333	2.4
7	NH3-2PPM	0.244	1.9905	2.0000	-0.5

10/28/2024
RM

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

SDG No : N/A

Start Digest Date: 10/23/2024 Time : 09:00 Temp : 95 °C

Matrix : WATER

End Digest Date: 10/23/2024 Time : 10:15 Temp : 96 °C

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#3

Digestion tube ID : M5595

Block Thermometer ID : WC-BLOCK#1

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

Filter paper ID : 400213

Prep Technician Signature: NP

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
PBW	50ML	W3112
MS/MSD SPIKE SOL.	0.5ML	WP108503
LCSW	0.5ML	WP108504
LOQ	50ML	WP110365
LOD	50ML	WP110364

Chemical Used	ML/SAMPLE USED	Lot Number
11N H2SO4	1ML	WP109922
AMMONIUM PERSULFATE	0.4GM	W3035
pH Paper 0-14	N/A	W3121
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
CAL1	CAL1	50ML	WP110353
CAL2	CAL2	50ML	WP110354
CAL3	CAL3	50ML	WP110355
CAL4	CAL4	50ML	WP110356
CAL5	CAL5	50ML	WP110357
CAL6	CAL6	50ML	WP110358
ICV	ICV	50ML	WP110360
ICB	ICB	50ML	W3112
CCV	CCV	50ML	WP110359
CCB	CCB	50ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

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

10-23-2024

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4368-07	LOD-MDL-WATER-01-QT4-2024	50	50	<2	N/A	N/A	N/A	N/A	N/A
P4368-08	LOQ-WATER-02-QT4-2024	50	50	<2	N/A	N/A	N/A	N/A	N/A
P4490-01	EFFLUENT	50	50	<2	N/A	N/A	N/A	N/A	N/A
P4490-01DUP	EFFLUENTDUP	50	50	<2	N/A	N/A	N/A	N/A	N/A
P4490-01MS	EFFLUENTMS	50	50	<2	N/A	N/A	N/A	N/A	N/A
P4490-01MSD	EFFLUENTMSD	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB164344BL	PBW344	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB164344BS	LCS344	50	50	<2	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TOTAL-P-10232024 WorkList ID : 184681 Department : Distillation Date : 10-23-2024 08:35:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4368-07	LOD-MDL-WATER-01-QT4-202	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	CHEM02	QA 01	10/09/2024	365.3
P4368-08	LOQ-WATER-02-QT4-2024	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	CHEM02	QA 01	10/09/2024	365.3
P4490-01	EFFLUENT	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	365.3

Date/Time 10-23-2024, 08:40
Raw Sample Received by: NFWC
Raw Sample Relinquished by: NFWC

Date/Time 10-23-2024, 12:00
Raw Sample Received by: JH GELC
Raw Sample Relinquished by: NFWC

SOP ID : MSM4500-NH3 B,G-Ammonia-17

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : N/A

Start Digest Date: 10/28/2024 Time : 08:40 Temp : 150 °C

End Digest Date: 10/28/2024 Time : 09:40 Temp : 160 °C

11 batch
10/28/2024 10:00 150°C
10/28/2024 11:00 160°C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature:

pH Meter ID : N/A

Supervisor Signature:

RM
12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP110181
MS/MSD SPIKE SOL.	1.0ML	WP110180
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP110180
MDL	0.8ML	WP110449

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP108708
NAOH 6N	0.5-2.0ML	WP108660
H2SO4 0.04N	5.0ML	WP110335
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W2965
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
WP108814.P4490-01,05ARE CLOUDY AND BAD SMELL SAMPLES SO I TOOK 1ML INSTEAD OF 50ML.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/28/2024 11:10	<i>RM (WC)</i>	<i>RM (WC)</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4368-09	MDL-WATER-03-QT4-2024	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4490-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4490-05	INFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-01	MW-1	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-01DUP	MW-1DUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-01MS	MW-1MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-01MSD	MW-1MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-03	MW-2	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-05	MW-3	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4548-07	MW-4	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB164383BL	PBS383	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB164383BS	LCS383	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : AMMONIA-1025

WorkList ID : 184782

Department : Distillation

Date : 10-25-2024 12:35:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4368-09	MDL-WATER-03-QT4-2024	Water	Ammonia	Conc H2SO4 to pH < 2	CHEM02	QA Of	10/09/2024	SM4500-NH3
P4490-01	EFFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	SM4500-NH3
P4490-05	INFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	SM4500-NH3
P4548-01	MW-1	Water	Ammonia	Conc H2SO4 to pH < 2	LOCK01	K11	10/23/2024	SM4500-NH3
P4548-03	MW-2	Water	Ammonia	Conc H2SO4 to pH < 2	LOCK01	K11	10/23/2024	SM4500-NH3
P4548-05	MW-3	Water	Ammonia	Conc H2SO4 to pH < 2	LOCK01	K11	10/23/2024	SM4500-NH3
P4548-07	MW-4	Water	Ammonia	Conc H2SO4 to pH < 2	LOCK01	K11	10/23/2024	SM4500-NH3

Date/Time 10/28/2024 08:10
 Raw Sample Received by: RM cwc
 Raw Sample Relinquished by: [Signature]

Date/Time 10/28/2024 10:15
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: RM cwc

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB133064

Review By	jignesh	Review On	10/23/2024 9:33:36 AM
Supervise By	Iwona	Supervise On	10/24/2024 10:59:09 AM
SubDirectory	LB133064	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	LB133064BL	LB133064BL	MB	10/22/24 15:00		jignesh	OK
2	LB133064BS	LB133064BS	LCS	10/22/24 15:00		jignesh	OK
3	P4446-01	MC0JT7	SAM	10/22/24 15:00		jignesh	OK
4	P4446-02	MC0JT8	SAM	10/22/24 15:00		jignesh	OK
5	P4446-03	MC0JW0	SAM	10/22/24 15:00		jignesh	OK
6	P4446-04	MC0JW1	SAM	10/22/24 15:00		jignesh	OK
7	P4446-05	MC0JW2	SAM	10/22/24 15:00		jignesh	OK
8	P4446-06	MC0JW3	SAM	10/22/24 15:00		jignesh	OK
9	P4446-07	MC0JW4	SAM	10/22/24 15:00		jignesh	OK
10	P4447-01	MC0JS9	SAM	10/22/24 15:00		jignesh	OK
11	P4447-02	MC0JT0	SAM	10/22/24 15:00		jignesh	OK
12	P4447-03	MC0JT2	SAM	10/22/24 15:00		jignesh	OK
13	P4447-04	MC0JT3	SAM	10/22/24 15:00		jignesh	OK
14	P4447-05	MC0JT4	SAM	10/22/24 15:00		jignesh	OK
15	P4447-06	MC0JT6	SAM	10/22/24 15:00		jignesh	OK
16	P4447-07	MC0JW5	SAM	10/22/24 15:00		jignesh	OK
17	P4463-01	001-WILLETTS-PT-BL	SAM	10/22/24 15:00		jignesh	OK
18	P4463-02	002-35TH-AVE(OCT)	SAM	10/22/24 15:00		jignesh	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB133064

Review By	jignesh	Review On	10/23/2024 9:33:36 AM
Supervise By	Iwona	Supervise On	10/24/2024 10:59:09 AM
SubDirectory	LB133064	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		

19	P4464-01	001-WILLETS-PT-BLV	SAM	10/22/24 15:00		jignesh	OK
20	P4464-02	002-35TH-AVE(SEP)	SAM	10/22/24 15:00		jignesh	OK
21	P4464-02DUP	002-35TH-AVE(SEP)	DUP	10/22/24 15:00		jignesh	OK
22	P4490-01	EFFLUENT	SAM	10/22/24 15:00		jignesh	OK
23	P4490-04	AERATION-TK-1	SAM	10/22/24 15:00		jignesh	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133071

Review By	Niha	Review On	10/23/2024 3:53:46 PM
Supervise By	Iwona	Supervise On	10/24/2024 9:39:42 AM
SubDirectory	LB133071	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	WP110358,WP110357,WP110356,WP110355,WP110354,WP110353,WP110359,WP110362,WP108727,WP108662,\		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	10/23/24 11:00		Niha	OK
2	CAL2	CAL2	CAL	10/23/24 11:00		Niha	OK
3	CAL3	CAL3	CAL	10/23/24 11:01		Niha	OK
4	CAL4	CAL4	CAL	10/23/24 11:01		Niha	OK
5	CAL5	CAL5	CAL	10/23/24 11:02		Niha	OK
6	CAL6	CAL6	CAL	10/23/24 11:02		Niha	OK
7	ICV	ICV	ICV	10/23/24 11:03		Niha	OK
8	ICB	ICB	ICB	10/23/24 11:03		Niha	OK
9	CCV1	CCV1	CCV	10/23/24 11:04		Niha	OK
10	CCB1	CCB1	CCB	10/23/24 11:04		Niha	OK
11	RL Check	RL Check	SAM	10/23/24 11:05		Niha	OK
12	PB164344BL	PB164344BL	MB	10/23/24 11:05		Niha	OK
13	PB164344BS	PB164344BS	LCS	10/23/24 11:06		Niha	OK
14	P4368-07	LOD-MDL-WATER-01	SAM	10/23/24 11:06		Niha	OK
15	P4368-08	LOQ-WATER-02-QT4	SAM	10/23/24 11:07		Niha	OK
16	P4490-01	EFFLUENT	SAM	10/23/24 11:07		Niha	OK
17	P4490-01DUP	EFFLUENTDUP	DUP	10/23/24 11:08		Niha	OK
18	P4490-01MS	EFFLUENTMS	MS	10/23/24 11:08		Niha	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133071

Review By	Niha	Review On	10/23/2024 3:53:46 PM
Supervise By	Iwona	Supervise On	10/24/2024 9:39:42 AM
SubDirectory	LB133071	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	WP110358,WP110357,WP110356,WP110355,WP110354,WP110353,WP110359,WP110362,WP108727,WP108662,\		

19	P4490-01MSD	EFFLUENTMSD	MSD	10/23/24 11:09		Niha	OK
20	CCV2	CCV2	CCV	10/23/24 11:09		Niha	OK
21	CCB2	CCB2	CCB	10/23/24 11:10		Niha	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133073

Review By	Niha	Review On	10/23/2024 2:20:34 PM
Supervise By	Iwona	Supervise On	10/23/2024 2:29:26 PM
SubDirectory	LB133073	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	WP110358,WP110357,WP110356,WP110355,WP110354,WP110353,WP110359,WP107791,WP110362,WP108727,\		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	10/23/24 10:00		Niha	OK
2	CAL2	CAL2	CAL	10/23/24 10:00		Niha	OK
3	CAL3	CAL3	CAL	10/23/24 10:01		Niha	OK
4	CAL4	CAL4	CAL	10/23/24 10:01		Niha	OK
5	CAL5	CAL5	CAL	10/23/24 10:02		Niha	OK
6	CAL6	CAL6	CAL	10/23/24 10:02		Niha	OK
7	ICV	ICV	ICV	10/23/24 10:03		Niha	OK
8	ICB	ICB	ICB	10/23/24 10:03		Niha	OK
9	CCV1	CCV1	CCV	10/23/24 10:04		Niha	OK
10	CCB1	CCB1	CCB	10/23/24 10:04		Niha	OK
11	RL Check	RL Check	SAM	10/23/24 10:05		Niha	OK
12	LB133073BL	LB133073BL	MB	10/23/24 10:05		Niha	OK
13	LB133073BS	LB133073BS	LCS	10/23/24 10:06		Niha	OK
14	P4368-07	LOD-MDL-WATER-01	SAM	10/23/24 10:06		Niha	OK
15	P4368-08	LOQ-WATER-02-QT4	SAM	10/23/24 10:07		Niha	OK
16	P4490-01	EFFLUENT	SAM	10/23/24 10:07		Niha	OK
17	P4490-01DUP	EFFLUENTDUP	DUP	10/23/24 10:08		Niha	OK
18	P4490-01MS	EFFLUENTMS	MS	10/23/24 10:08		Niha	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133073

Review By	Niha	Review On	10/23/2024 2:20:34 PM
Supervise By	Iwona	Supervise On	10/23/2024 2:29:26 PM
SubDirectory	LB133073	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	WP110358,WP110357,WP110356,WP110355,WP110354,WP110353,WP110359,WP107791,WP110362,WP108727,\		

19	P4490-01MSD	EFFLUENTMSD	MSD	10/23/24 10:09		Niha	OK
20	CCV2	CCV2	CCV	10/23/24 10:09		Niha	OK
21	CCB2	CCB2	CCB	10/23/24 10:10		Niha	OK

Instrument ID: DO METER

Daily Analysis Runlog For Sequence/QC Batch ID # LB133080

Review By	rubina	Review On	10/28/2024 4:06:26 PM
Supervise By	Iwona	Supervise On	10/28/2024 4:07:40 PM
SubDirectory	LB133080	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	WP110376,W3149,WP108475,W3103,W3109,W3105,WP110378,WP110377,WP108662		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133080BL	LB133080BL	MB	10/23/24 17:40		rubina	OK
2	LB133080BS	LB133080BS	LCS	10/23/24 17:40		rubina	OK
3	P4490-01	EFFLUENT	SAM	10/23/24 17:40		rubina	OK
4	P4490-01DUP	EFFLUENTDUP	DUP	10/23/24 17:40		rubina	OK
5	P4490-05	INFLUENT	SAM	10/23/24 17:40		rubina	OK
6	P4491-02	COMP	SAM	10/23/24 17:40		rubina	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB133159

Review By	jignesh	Review On	10/28/2024 9:02:04 AM
Supervise By	Iwona	Supervise On	10/28/2024 4:13:12 PM
SubDirectory	LB133159	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	W3110,M6069,EP2554,WP108566,NA,NA,WP108567,NA,WP108568		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133159BL	LB133159BL	MB	10/28/24 10:25		jignesh	OK
2	LB133159BS	LB133159BS	LCS	10/28/24 10:25		jignesh	OK
3	P4490-01	EFFLUENT	SAM	10/28/24 10:25		jignesh	OK
4	P4490-02	P4490-01MS	MS	10/28/24 10:25		jignesh	OK
5	P4490-03	P4490-01MSD	MSD	10/28/24 10:25		jignesh	OK
6	P4503-01	C0JX3	SAM	10/28/24 10:25		jignesh	OK
7	P4503-02	C0JX4	SAM	10/28/24 10:25		jignesh	OK
8	P4503-03	C0JX5	SAM	10/28/24 10:25		jignesh	OK
9	P4503-04	C0JX6	SAM	10/28/24 10:25		jignesh	OK
10	P4503-05	C0JX7	SAM	10/28/24 10:25		jignesh	OK
11	P4503-06	C0JX8	SAM	10/28/24 10:25		jignesh	OK
12	P4503-07	C0JX9	SAM	10/28/24 10:25		jignesh	OK
13	P4503-08	C0JY0	SAM	10/28/24 10:25		jignesh	OK
14	P4504-01	C0JW6	SAM	10/28/24 10:25		jignesh	OK
15	P4504-02	C0JW7	SAM	10/28/24 10:25		jignesh	OK
16	P4504-03	C0JW8	SAM	10/28/24 10:25		jignesh	OK
17	P4504-04	C0JW9	SAM	10/28/24 10:25		jignesh	OK
18	P4504-05	C0JX0	SAM	10/28/24 10:25		jignesh	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB133159

Review By	jignesh	Review On	10/28/2024 9:02:04 AM
Supervise By	Iwona	Supervise On	10/28/2024 4:13:12 PM
SubDirectory	LB133159	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	W3110,M6069,EP2554,WP108566,NA,NA,WP108567,NA,WP108568		

19	P4504-06	C0JX1	SAM	10/28/24 10:25		jignesh	OK
20	P4504-07	C0JX2	SAM	10/28/24 10:25		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB133173

Review By	rubina	Review On	10/29/2024 4:07:28 PM
Supervise By	Iwona	Supervise On	10/29/2024 4:10:44 PM
SubDirectory	LB133173	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP110445		
ICV Standard	WP110447		
CCV Standard	WP110446		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110181		
Chk Standard	WP110416,WP110019,WP108709,WP108840,WP110449		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	10/28/24 12:51		rubina	OK
2	0.1PPM	0.1PPM	CAL2	10/28/24 12:51		rubina	OK
3	0.2PPM	0.2PPM	CAL3	10/28/24 12:51		rubina	OK
4	0.4PPM	0.4PPM	CAL4	10/28/24 12:51		rubina	OK
5	1.0PPM	1.0PPM	CAL5	10/28/24 12:51		rubina	OK
6	1.3PPM	1.3PPM	CAL6	10/28/24 12:51		rubina	OK
7	2.0PPM	2.0PPM	CAL7	10/28/24 12:51		rubina	OK
8	ICV1	ICV1	ICV	10/28/24 13:31		rubina	OK
9	ICB1	ICB1	ICB	10/28/24 13:31		rubina	OK
10	CCV1	CCV1	CCV	10/28/24 13:31		rubina	OK
11	CCB1	CCB1	CCB	10/28/24 13:31		rubina	OK
12	RL	RL	SAM	10/28/24 13:31		rubina	OK
13	PB164383BL	PB164383BL	MB	10/28/24 13:32		rubina	OK
14	PB164383BS	PB164383BS	LCS	10/28/24 13:42		rubina	OK
15	P4368-09	MDL-WATER-03-QT4	SAM	10/28/24 13:42		rubina	OK
16	P4490-01	EFFLUENT	SAM	10/28/24 13:42	High	rubina	Dilution
17	P4490-05	INFLUENT	SAM	10/28/24 13:42	High	rubina	Dilution
18	P4548-01	MW-1	SAM	10/28/24 13:42		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB133173

Review By	rubina	Review On	10/29/2024 4:07:28 PM
Supervise By	Iwona	Supervise On	10/29/2024 4:10:44 PM
SubDirectory	LB133173	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP110445		
ICV Standard	WP110447		
CCV Standard	WP110446		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110181		
Chk Standard	WP110416,WP110019,WP108709,WP108840,WP110449		

19	P4548-01DUP	MW-1DUP	DUP	10/28/24 13:42		rubina	OK
20	P4548-01MS	MW-1MS	MS	10/28/24 13:53		rubina	OK
21	P4548-01MSD	MW-1MSD	MSD	10/28/24 13:53		rubina	OK
22	CCV2	CCV2	CCV	10/28/24 13:53		rubina	OK
23	CCB2	CCB2	CCB	10/28/24 13:53		rubina	OK
24	P4548-03	MW-2	SAM	10/28/24 13:53	High	rubina	Dilution
25	P4548-05	MW-3	SAM	10/28/24 13:53	High	rubina	Dilution
26	P4548-07	MW-4	SAM	10/28/24 13:53	High	rubina	Dilution
27	PB164463BL	PB164463BL	MB	10/28/24 13:53		rubina	OK
28	PB164463BS	PB164463BS	LCS	10/28/24 13:53		rubina	OK
29	P4368-03	MDL-SOIL-03-QT4-20	SAM	10/28/24 14:01		rubina	OK
30	CCV3	CCV3	CCV	10/28/24 14:01		rubina	OK
31	CCB3	CCB3	CCB	10/28/24 14:01		rubina	OK
32	P4490-01DL	EFFLUENTDL	SAM	10/28/24 14:41	Report 10X	rubina	Confirms
33	P4490-05DL	INFLUENTDL	SAM	10/28/24 14:41	Report 5X	rubina	Confirms
34	P4548-03DL	MW-2DL	SAM	10/28/24 14:41	Report 10X	rubina	Confirms
35	P4548-05DL	MW-3DL	SAM	10/28/24 14:41	Report 5X	rubina	Confirms
36	P4548-07DL	MW-4DL	SAM	10/28/24 14:41	Report 5X	rubina	Confirms
37	CCV4	CCV4	CCV	10/28/24 14:41		rubina	OK
38	CCB4	CCB4	CCB	10/28/24 14:41		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : P4490

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

Prepbatch ID : PB164344,PB164383,

Sequence ID/Qc Batch ID: LB133064,LB133071,LB133073,LB133080,LB133159,LB133173,

Standard ID :

EP2554,WP107791,WP108475,WP108501,WP108502,WP108503,WP108504,WP108566,WP108567,WP108568,WP108660,WP108661,WP108662,WP108708,WP108709,WP108727,WP108840,WP109922,WP110019,WP110149,WP110150,WP110180,WP110181,WP110335,WP110353,WP110354,WP110355,WP110356,WP110357,WP110358,WP110359,WP110360,WP110361,WP110362,WP110363,WP110364,WP110365,WP110376,WP110377,WP110378,WP110416,WP110445,WP110446,WP110447,WP110449,

Chemical ID :

E3551,E3726,M5037,M5211,M5673,M5943,M6069,W1992,W1993,W2306,W2606,W2650,W2653,W2654,W2664,W2666,W2699,W2700,W2708,W2788,W2817,W2858,W2871,W2965,W3009,W3035,W3059,W3074,W3082,W3103,W3105,W3109,W3110,W3112,W3113,W3117,W3121,W3132,W3133,W3143,W3149,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2554	10/26/2024	01/03/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Rajesh Parikh
FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram (EX-SC-2)								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
126	5N sulfuric acid	WP107791	05/07/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych 05/07/2024
<u>FROM</u> 140.00000ml of M5211 + 860.00000ml of W2606 = Final Quantity: 1.000 L								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1841	Sulfuric Acid, 1N	WP108475	06/18/2024	10/24/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 2.80000ml of M5037 + 97.20000ml of W2606 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
648	Ammonium molybdate solution	WP108501	06/20/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 06/20/2024
<u>FROM</u>	20.00000gram of W2664 + 480.00000ml of W2606 = Final Quantity: 500.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
588	Potassium Antimonyl Tartrate	WP108502	06/20/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 06/20/2024
<u>FROM</u> 1.37150gram of W2306 + 500.00000ml of W2606 = Final Quantity: 500.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
115	Phosphate Stock Std. (50 ppm)	WP108503	06/20/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 06/20/2024
<u>FROM</u> 0.11000gram of W2699 + 500.00000ml of W2606 = Final Quantity: 500.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2790	Phosphate Stock std, 50PPM-SS	WP108504	06/20/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych
								06/20/2024

FROM 0.11000gram of W2708 + 500.00000ml of W2606 = Final Quantity: 500.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
229	1:1 HCL	WP108566	06/27/2024	10/24/2024	Jignesh Parikh	None	None	Iwona Zarych
								06/27/2024

FROM 500.00000ml of M5943 + 500.00000ml of W2606 = Final Quantity: 1.000 L

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2470	1664A SPIKING SOLN	WP108567	06/27/2024	12/25/2024	Jignesh Parikh	None	None	Iwona Zarych
								06/27/2024

FROM 1000.00000ml of E3726 + 4.00000gram of W2817 + 4.00000gram of W2871 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3374	1664A QCS spiking solution-SS	WP108568	06/27/2024	12/25/2024	Jignesh Parikh	WETCHEM_S CALE_4 (WC SC-4)	None	Iwona Zarych
								06/27/2024

FROM 1000.00000ml of E3726 + 4.00000gram of W3009 + 4.00000gram of W3082 = Final Quantity: 1000.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1471	NaOH Solution, 6N	WP108660	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 07/09/2024
<u>FROM</u> 240.00000gram of W3113 + 760.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1796	NaOH, 0.1N	WP108661	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 07/09/2024
<u>FROM</u> 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1571	Sodium hydroxide, 1N	WP108662	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 07/11/2024
<u>FROM</u>	4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1494	BORATE BUFFER	WP108708	07/11/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Mohan Bera 07/17/2024
<u>FROM</u> 0.90250L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP108661 = Final Quantity: 1.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
290	Phenol reagent for Ammonia	WP108709	07/11/2024	01/11/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Mohan Bera 07/17/2024
<u>FROM</u> 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1213	Phenolphthalein indicator	WP108727	07/12/2024	01/12/2025	Niha Farheen Shaik	WETCHEM_SCALE_3 (WCS-3)	None	Mohan Bera
<u>FROM</u> 0.10000gram of W2650 + 50.00000ml of W2788 + 50.00000ml of W3112 = Final Quantity: 100.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
635	EDTA BUFFER FOR AMMONIA	WP108840	07/26/2024	01/26/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC-5)	None	Iwona Zarych 07/26/2024
<u>FROM</u> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1211	11 N sulfuric acid	WP109922	09/26/2024	03/26/2025	Iwona Zarych	None	None	Jignesh Parikh
<u>FROM</u> 306.00000ml of M5673 + 694.00000ml of W3112 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
289	Sodium Hypochlorite for Ammonia	WP110019	10/02/2024	01/31/2025	Rubina Mughal	None	None	Iwona Zarych
								10/04/2024

FROM 50.00000ml of W3112 + 50.00000ml of W3143 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
153	Ammonia Stock Std. (1000 ppm)	WP110149	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych
								10/14/2024

FROM 3.81900gram of W1993 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1895	Ammonia Stock Std, 1000PPM-SS	WP110150	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 10/14/2024
<u>FROM</u> 3.81900gram of W1992 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1322	Ammonia Intermediate Std, 50PPM	WP110180	10/14/2024	11/14/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/15/2024
<u>FROM</u> 95.00000ml of W3112 + 5.00000ml of WP110149 = Final Quantity: 100.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1639	Ammonia Intermediate Std-Second source, 50PPM	WP110181	10/14/2024	11/14/2024	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 10/15/2024

FROM 95.00000ml of W3112 + 5.00000ml of WP110150 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1597	0.04 N H2SO4	WP110335	10/22/2024	04/22/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych 10/22/2024

FROM 1.00000ml of M5673 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
122	calibration std. 0 ppm	WP110353	10/23/2024	10/30/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								10/24/2024

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
121	calibration std. phosphate 0.05 ppm	WP110354	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	10/24/2024

FROM 99.90000ml of W3112 + 0.10000ml of WP108503 = Final Quantity: 100.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
120	calibration std. phosphate 0.1 ppm	WP110355	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/24/2024
<u>FROM</u> 99.80000ml of W3112 + 0.20000ml of WP108503 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
119	calibration std. phosphate 0.3 ppm	WP110356	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 10/24/2024
<u>FROM</u> 99.40000ml of W3112 + 0.60000ml of WP108503 = Final Quantity: 100.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
118	calibration std. phosphate 0.5 ppm	WP110357	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 10/24/2024

FROM 99.00000ml of W3112 + 1.00000ml of WP108503 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
117	calibration std. phosphate 1 ppm	WP110358	10/23/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych 10/24/2024

FROM 98.00000ml of W3112 + 2.00000ml of WP108503 = Final Quantity: 100.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
124	phosphate CCV std.	WP110359	10/23/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								10/24/2024

FROM 99.00000ml of W3112 + 1.00000ml of WP108503 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3805	Phosphate ICV-LCS Std	WP110360	10/23/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								10/24/2024

FROM 99.00000ml of W3112 + 1.00000ml of WP108504 = Final Quantity: 100.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
590	Ascorbic Acid	WP110361	10/23/2024	10/30/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2024

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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
658	Combined reagent	WP110362	10/23/2024	10/24/2024	Niha Farheen Shaik	None	None	Iwona Zarych 10/24/2024

FROM 15.00000ml of WP108501 + 30.00000ml of WP110361 + 5.00000ml of WP108502 + 50.00000ml of WP107791 = Final Quantity: 100.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3907	Phosphate MDL-LOD-LOQ spike solution, 5ppm	WP110363	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 10/24/2024
<u>FROM</u>	9.00000ml of W3112 + 1.00000ml of WP108503 = Final Quantity: 10.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3814	Phosphate LOD-MDL Std 0.025ppm	WP110364	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_P IPETTE_3 (WC)	Iwona Zarych 10/24/2024
<u>FROM</u>	99.50000ml of W3112 + 0.50000ml of WP110363 = Final Quantity: 100.000 ml							

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3730	Phosphatase LOQ std, 0.05PPM	WP110365	10/23/2024	10/24/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 10/24/2024

FROM 99.00000ml of W3112 + 1.00000ml of WP110363 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
127	BOD Dilution fluid	WP110376	10/23/2024	10/24/2024	Rubina Mughal	None	None	Iwona Zarych 10/24/2024

FROM 18.00000L of W3112 + 3.00000PILLOW of W3117 = Final Quantity: 18.000 L

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
129	Glutamic acid-glucose mix for BOD	WP110377	10/23/2024	10/24/2024	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych 10/24/2024
FROM 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
128	polyseed seed control	WP110378	10/23/2024	10/24/2024	Rubina Mughal	None	None	Iwona Zarych 10/24/2024
FROM 1.00000PILLOW of W3059 + 300.00000ml of WP110376 = Final Quantity: 300.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
740	sodium nitroferricyanide for ammonia	WP110416	10/25/2024	04/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/25/2024
FROM 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
275	Ammonia Calibration Std. (2 ppm)	WP110445	10/28/2024	10/29/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/30/2024
<u>FROM</u> 48.00000ml of W3112 + 2.00000ml of WP110180 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
285	Ammonia CCV Std. (1 ppm)	WP110446	10/28/2024	10/29/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/30/2024
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP110180 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
286	Ammonia ICV Std. (1 ppm)	WP110447	10/28/2024	10/29/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/30/2024
<u>FROM</u> 49.00000ml of W3112 + 1.00000ml of WP110181 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3906	Ammonia MDL-LOD-LOQ spiking solution -5ppm	WP110449	10/28/2024	10/29/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 45.00000ml of W3112 + 5.00000ml of WP110180 = Final Quantity: 50.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	01/03/2025	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)	1234	12/25/2024	02/26/2024 / Rajesh	02/23/2024 / Rajesh	E3726

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)	0000250349	12/15/2024	01/06/2022 / mohan	09/18/2021 / mohan	M5037

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)	22D0862014	01/20/2025	08/22/2022 / mohan	04/26/2022 / mohan	M5211

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	09/21/2023 / mohan	09/05/2023 / mohan	M5673

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	12/24/2024	06/24/2024 / Al-Terek	06/21/2024 / Al-Terek	M5943

CHEMICAL RECEIPT LOG BOOK

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 #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	WL13B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1992

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	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J2870-1 / PHENOLPHTHALEIN, INDICATOR F/TITRATION, 500G	0000235350	06/04/2025	01/31/2020 / AMANDEEP	01/20/2020 / apatel	W2650

CHEMICAL RECEIPT LOG BOOK

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.	J3246-1 / POTAS PHOSPHATE, MONO, CRYST, ACS, 500G	04/2019-20	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2699

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

CHEMICAL RECEIPT LOG BOOK

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, CRYST, ACS, 500G	99/2019-20	05/05/2025	05/05/2020 / apatel	05/05/2020 / apatel	W2708

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.	140730 / TEST PAPER,POT.IOD-STRCH,P K100,CS12	60799-008,260	09/19/2027	09/19/2022 / jignesh	09/19/2022 / jignesh	W2965

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	SHBP8192	02/27/2028	02/27/2023 / lwona	02/27/2023 / lwona	W3009

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 / lwona	06/06/2023 / lwona	W3035

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	136742-80 / POLYSEED	152305	05/30/2025	02/15/2024 / Rubina	10/18/2023 / lwona	W3059

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 / lwona	01/16/2024 / lwona	W3074

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	U23E020	02/26/2029	02/26/2024 / lwona	02/26/2024 / lwona	W3082

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 / lwona	04/22/2024 / lwona	W3103

CHEMICAL RECEIPT LOG BOOK

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,4LIT RE	4403S13	09/30/2025	04/22/2024 / lwona	04/22/2024 / lwona	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 / lwona	05/23/2024 / lwona	W3109

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)	235898	02/28/2029	06/27/2024 / jignesh	06/26/2024 / jignesh	W3110

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk	A4032	04/30/2029	10/02/2024 / rubina	07/12/2024 / lwona	W3117

CHEMICAL RECEIPT LOG BOOK

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	HC446507	07/25/2029	07/25/2024 / lwona	07/25/2024 / lwona	W3121

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	2407F34	01/31/2025	09/30/2024 / lwona	09/30/2024 / lwona	W3143

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 / lwona	10/16/2024 / lwona	W3149



CERTIFICATE OF ANALYSIS

Printed: 12/8/2017

Page 1 of 1

Customer No : 30017
Order Number : 3008126
Catalog : A1561

Customer : PCI SCIENTIFIC
Delivery # : 58495347
Potassium Antimony Tartrate Trihydrate,
Reagent, ACS

Customer PO : 6035343

Lot : 2GH0057

Chemical Formula : $C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$
CAS# : 28300-74-5

Formula Weight : 667.87

W2306
received
12/11/17
AB

Test

Limit
Min. Max.

Results

ASSAY ($C_8H_4K_2O_{12}Sb_2 \cdot 3HO$)	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:

Certificate of Analysis



Date of Release: 12/18/2013

Product: Ammonium Chloride GR ACS

Catalog No.: AX1270 all
size codes

Grade: Meets ACS Specifications

CAS #: 12125-02-9

Country of Origin: India

FW: 53.49

Lot No.: WL13B



Characteristic	Requirement		Results	UOM
	Minimum	Maximum		
Assay (argentometric)	99.5		99.9	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.21	%
Magnesium (Mg)		5	0.6	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.76	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopf

Quality Control Manager

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Certificate of Analysis



Date of Release: 5/12/2014

Product: Ammonium Chloride GR ACS

Catalog No.: AX1270 all
size codes

Grade: Meets ACS Specifications

CAS #: 12125-02-9

Country of Origin: India

FW: 53.49

Lot No.: XE09B



Characteristic	Requirement		Results	UOM
	Minimum	Maximum		
Assay (argentometric)	99.5		99.8	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.22	%
Magnesium (Mg)		5	0.7	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.95	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopf

Quality Control Manager

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Subject to Vadodara Jurisdiction



CHAMPA PURIE-CHEM INDUSTRIES

ISO 9001 : 2015 CERTIFIED COMPANY

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Gujarat - INDIA.

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Fax : (F) +91-265-2638038
E-mail : info@cpclndia.com
Web : www.cpclndia.com

CERTIFICATE OF ANALYSIS

PRODUCT : POTASSIUM PHOSPHATE MONOBASIC Anhy. - ACS		
CERTIFICATE NO	: 04/2019-20	DATE 13-05-2019
Date of receipt of sample	: 29.04.2019	Quantity : 1000 KGS.
Batch No. /Lot No.	: 04/2019-20	
Mfg. Date	: April-2019	
1. Characteristic : A White powder		
2. Identification : Positive		
	RESULT OBTAINED	LIMITS
3. Clarity and colour of solution : 10% solution is clear and colourless		
4. Assay (on dry basis)	99.35%	Min.99.00%
5. PH (5% solution)	4.28	4.1-4.5
6. Loss on Drying	0.06%	Max 0.2%
7. Heavy Metals	0.0004%	Max.0.001%
8. iron	0.001%	Max 0.002%
9. Sulphate	0.0015%	Max. 0.003%
10. Chloride	0.0005%	Max.0.001%
11. Insoluble Matter	0.002%	Max. 0.01%
12. Sodium	0.0038%	Max. 0.005%
The sample does comply with specification as per Above.		
Analysed by <u>J. A. PATHAK</u>		Quality Control Department

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

James Ethier
Jamie Ethier
Vice President Global Quality

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

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

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	40.5°C min	40.5 °C
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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W2666 Recived on 02/10/2020 by AP

Product No.: 87683

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

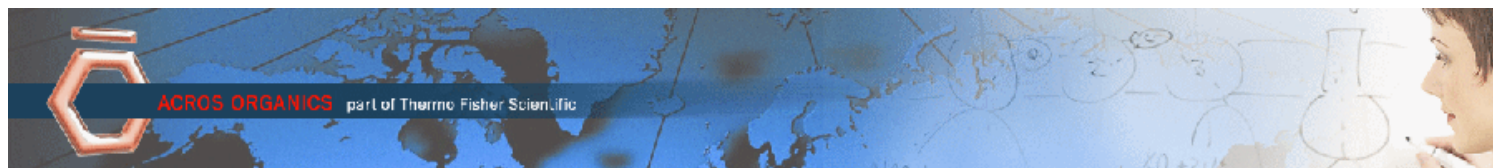
Lot No.: W12F013

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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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)

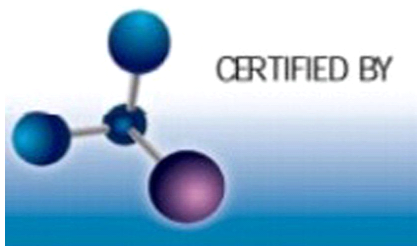
Certificate of Analysis

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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 (SO ₄)	=<300 ppm	=<200 ppm
Ammonium (NH ₄)	=<200 ppm	=<200 ppm
Arsenic oxide (As ₂ O ₃)	=<1 ppm	=<1 ppm



L. Van den Broek, QA Manager

Issued: 24 January 2020

Acros Organics

ENA23, zone 1, nr 1350, Janssen Pharmaceuticaaan 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

W2817

REC. 04/02/2021

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: QIQXTHQIDYTRH-UHFFFAOYSA-N
SMILES: CCCCCCCCCCCCCCCC(O)=O
Synonym: stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016
stearic acid, ion(1-) (8Cl) glycon TP glycon DP acidum stearinicum 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 W2788 Received on 12/30/2020 by AP
Recommended Retest Date: Five Years from Date of Manufacture

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
Titration 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

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



W3009
rec. 2/27/2023 12

Product Name:

Hexadecane - ReagentPlus®, 99%

Certificate of Analysis

Product Number:

H6703

Batch Number:

SHBP8192

 $\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$

Brand:

SIAL

CAS Number:

544-76-3

MDL Number:

MFCD00008998

Formula:

C16H34

Formula Weight:

226.44 g/mol

Quality Release Date:

04 AUG 2022

Test	Specification	Result
Appearance (Color)	Colorless or White	Colorless
Appearance (Form)	Liquid or Solid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Refractive index at 20 ° C	1.432 - 1.436	1.435
Purity (GC)	≥ 98.5 %	99.3 %
Color Test	≤ 20 APHA	< 5 APHA


Larry Coers, Director

Quality Control

Sheboygan Falls, WI US

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



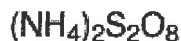
W 3035
rec. 6/6/23 12

Product Name:

Certificate of Analysis

Ammonium persulfate - ACS reagent, $\geq 98.0\%$

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



Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Crystals
ICP Major Analysis	Confirmed	Confirmed
Confirms Sulfur Component		
Titration by KMNO ₄	$\geq 98.0 \%$	100.0 %
Residue on ignition (Ash)	$\leq 0.05 \%$	$< 0.05 \%$
Insoluble Matter	$\leq 0.005 \%$	0.002 %
c = 10 %; In Water		
Chloride and Chlorate (as Cl)	$\leq 0.001 \%$	$< 0.001 \%$
Iron (Fe)	$\leq 0.001 \%$	$< 0.001 \%$
Heavy Metal	$\leq 0.005 \%$	$< 0.001 \%$
as Lead		
Manganese (Mn)	$\leq 0.5 \text{ ppm}$	$< 0.1 \text{ ppm}$
Titrateable 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

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

W 3059
REC. 10/18/23 12

FINISHED PRODUCT, LOT NUMBER, MFG. /EXP DATE:

PolySeed® • Part No. P-110 • Lot 152305 • Mfg. Date: 05/2023 • Exp. Date: 05/2025

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# L257-09 – Average Test Result: 203.4

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 assure that the Finished Product conforms to the above specification.

Signature: _____

Quality Control Department

Date: 05/15/2023

POLYSEED.Ref.1.19

Revised Jan 23

InterLab®
International Laboratory Supply



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 (Na ₂ B ₄ O ₇ • 10H ₂ O)	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 (PO ₄)	0.001% max.	<0.001%
Sulfate (SO ₄)	0.005% max.	<0.005%

Joe Schoellkopf

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.

Form number: 00005624CA, Rev. 2.0



Certificate of Analysis

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

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

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

Catalog Number	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

Jerisa 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
QUÍMICOS
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 ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO 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 foreign 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 R3 on 7/24/23 E 3551

RC-02-01, Ed. 3

Sulfuric Acid

BAKER INSTRA-ANALYZED® Reagent

For Trace Metal Analysis

Low Selenium

avantorsm



Material No.: 9673-33

Batch No.: 0000250349

Manufactured Date: 2019/12/17

Retest Date: 2024/12/15

Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H ₂ SO ₄)	95.0 - 98.0 %	96.5
Appearance	Passes Test	PT
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Substances Reducing Permanganate (as SO ₂)	<= 2 ppm	< 2
Ammonium (NH ₄)	<= 1 ppm	< 1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Nitrate (NO ₃)	<= 0.2 ppm	< 0.1
Phosphate (PO ₄)	<= 0.5 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 30.0 ppb	0.2
Arsenic and Antimony (as As)	<= 4 ppb	< 2
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 1.0
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	2.9
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 1.0
Trace Impurities - Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities - Gold (Au)	<= 10.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 500 ppb	< 100

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

Avantor Performance Materials, LLC

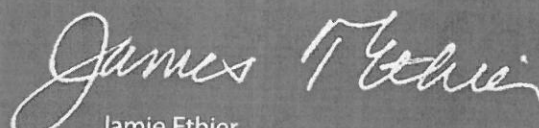
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9673-33
Batch No.: 0000250349

Test	Specification	Result
Trace Impurities - Iron (Fe)	<= 50.0 ppb	4.1
Trace Impurities - Lead (Pb)	<= 0.5 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	< 0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 2.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 10.0 ppb	< 1.0
Trace Impurities - Potassium (K)	<= 500.0 ppb	< 2.0
Trace Impurities - Selenium (Se)	<= 50.0 ppb	22.9
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 500.0 ppb	2.7
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 10.0 ppb	< 5.0
Trace Impurities - Thallium (Tl)	<= 20.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 10.0 ppb	< 1.0
Trace Impurities - Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0

For Laboratory, Research or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality

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

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

Sulfuric Acid

BAKER INSTRA-ANALYZED® Reagent

For Trace Metal Analysis

Low Selenium

avantor™



Material No.: 9673-33

Batch No.: 22D0862014

Manufactured Date: 2022-02-23

Retest Date: 2027-02-22

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H ₂ SO ₄)	95.0 – 98.0 %	96.5 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO ₂)	≤ 2 ppm	< 2 ppm
Ammonium (NH ₄)	≤ 1 ppm	< 1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO ₃)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	1.7 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 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	< 0.2 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	2.0 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.6 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	12.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	4.4 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

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

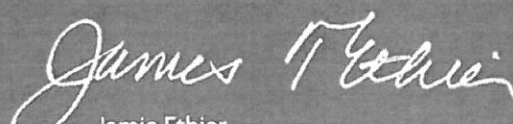


Material No.: 9673-33
Batch No.: 22D0862014

Test	Specification	Result
Trace Impurities – Sodium (Na)	≤ 500.0 ppb	6.2 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	0.6 ppb

For Laboratory, Research, or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality

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

 **avantor**™



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

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H ₂ SO ₄)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO ₂)	≤ 2 ppm	< 2 ppm
Ammonium (NH ₄)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO ₃)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

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



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

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

For Laboratory, Research, or Manufacturing Use

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

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

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

avantor™



MS943 MS944
MS945 MS946

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



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

 **avantorsm**

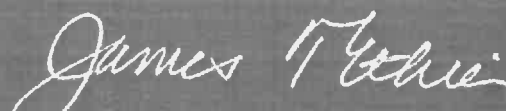


Material No.: 9530-33
Batch No.: 22G2862015

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

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


Jamie Ethier
Vice President Global Quality



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.





CHAMPA PURIE-CHEM INDUSTRIES

ISO 9001 : 2015 CERTIFIED COMPANY

Importers Exporters Manufacturers & Marketing of Fine Chemicals & Pharmaceuticals

262-263, G.I.D.C. Estate,
Makarpura,
Vadodara - 390 010.
Gujarat - INDIA.

Phone : (F) +91-265-2633314 / 2643723
Fax : (F) +91-265-2638036
E-mail : info@cpcindia.com
Web : www.cpcindia.com

W2708 Received on 05/05/20 by AP

CERTIFICATE OF ANALYSIS

PRODUCT	: POTASSIUM PHOSPHATE MONOBASIC Anhy. - ACS	
CERTIFICATE NO	: 99/2019- 20	DATE 26-08-2019
Date of receipt of sample	: 22.08.2019	Quantity : 1000 KGS
Batch No. /Lot No	: 99/2019- 20	
Mfg. Date	: Aug-2019	
1. Characteristic	: A White powder	
2. Identification	: Positive	
	RESULT OBTAINED	LIMITS
3. Clarity and colour of solution	: 10% solution is clear and colourless	
4. Assay (on dry basis)	: 99.27%	Min.99.00%
5. PH (5% solution)	: 4.4	4.1-4.5
6. Loss on Drying	: 0.1%	Max 0.2%
7. Heavy Metals	: 0.0003%	Max.0.001%
8. Iron	: 0.001%	Max 0.002%
9. Sulphate	: 0.001%	Max. 0.003%
10. Chloride	: 0.0005%	Max.0.001%
11. Insoluble Matter	: 0.003%	Max. 0.01%
12. Sodium	: 0.004%	Max. 0.005%
The sample does comply with specification as per Above.		
Analysed by	<u>J.A. PATHAK</u>	Quality Control Department

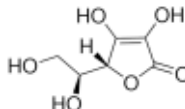
W3074 Rec. on 01/16/24 by IZ

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)	Conforms to Requirements	Powder
Powder, Crystals, Crystalline Powder, Granules and/or Chunks		
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.



Certificate of analysis

W3082 Received on 2/26/2026 by IZ

Product No.: A12244
Product: Stearic acid, 98%
Lot No.: U23E020

Appearance White flakes
Assay 98.7 %

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

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ThermoFisher
S C I E N T I F I C



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."

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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-CI 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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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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W3110
58
operate!
06/27/2024

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 - 0120633

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

Catalog Number	H303	Quality Test / Release Date	02/23/2024
Lot Number	235898		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Feb/2029
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	73
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.670
EVAPORATION RESIDUE	ppm	<= 1	0.3
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.64
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.16
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.06
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.002
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.380
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Harout Sahagian
Harout Sahagian - Quality Control Manager - 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.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

Certificate of Analysis List

For request number 2018139

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
1486227	4032	1486266	4032	BOD Nutrient Buffer Pillows

Total Enclosures: 1

***Certificate of Analysis******This is a Component of 1486266 lot A4032***

Page 1

COMMODITY: **BOD Nutrient Buffer Pillows**COMMODITY NUMBER: **1486227**

MANUFACTURE DATE:

DATE OF ANALYSIS:

LOT NUMBER: **A4032****3/5/2024****3/13/2024**

<i>TEST</i>	<i>SPECIFICATIONS</i>	<i>RESULTS</i>
Ammonia Concentration of a diluted pillow	0.57 to 0.79 ppm	0.710 ppm
Calcium Concentration of a diluted pillow	0.93 to 1.29 ppm	1.060 ppm
Iron Concentration of a diluted pillow	0.27 to 0.36 ppm	0.298 ppm
Magnesium Concentration of a diluted pillow	0.35 to 0.48 ppm	0.430 ppm
Phosphorus Concentration of a diluted pillow	7.6 to 10.3 ppm	8.05 ppm
pH in a 6 L of DI water	7.1 to 7.6	7.32
Five Day Change in Dissolved Oxygen Concentration	-0.2 to 0.2 ppm	-0.18 ppm
Sterility	To Pass	Passed

The expiration date is Mar 2029

Certified by

Scott Als
Analytical Services Chemist

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) ₃ N]		0.1 %	<0.10 %
IDENTIFICATION A	MATCHES REFERENCE		MATCHES REFERENCE
IDENTIFICATION B	RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION		RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION
IDENTIFICATION C	MEETS THE REQUIREMENTS FOR SODIUM		MEETS THE REQUIREMENTS FOR SODIUM
CERTIFIED HALAL			CERTIFIED HALAL
EXPIRATION DATE			10-JUL-2026
DATE OF MANUFACTURE			11-JUL-2023
APPEARANCE			WHITE CRYSTALLINE POWDER
RESIDUAL SOLVENTS		AS REPORTED	NO RESIDUAL SOLVENTS PRESENT
MONOGRAPH EDITION			USP 2024

Certificate of Analysis Results Entered By:

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

Certificate of Analysis Results Approved By:

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

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



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

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

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

Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2407F34**Product Number:** 7495.5**Manufacture Date:** JUL 12, 2024**Expiration Date:** JAN 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	5.05 % (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 (07/12/2024)
Operations Manager

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Certificate of Analysis

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

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

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

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

Specification	Reference
Starch Solution	APHA (4500-S2- F)
Starch Indicator Solution	APHA (4500-CI 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-CI 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)

A handwritten signature in blue ink that reads "Paul Brandon". The signature is fluid and cursive, with the first name "Paul" and last name "Brandon" clearly distinguishable.

Paul Brandon (08/28/2024)
Production Manager

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SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO. **P4490**
QUOTE NO.
COC Number **2041995**

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: **HOLLAND MFG CO**
ADDRESS: **15 MAIN ST SUCCASUNNA**
CITY **SUCCASUNNA** STATE: **NJ** ZIP: **07816**
ATTENTION:
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **HMC PRETREATMENT**
PROJECT NO.: LOCATION:
PROJECT MANAGER: **TODD HOLLAND**
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: **SAME** 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 DAYS

DATA DELIVERABLE INFORMATION

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

BOD 5
TSS
O+G
PO4
TOTAL P
NH4

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	EFFLUENT	W		✓	10/22	1200	6	✓	✓	✓	✓	✓	✓					
2.	AERATION TANK 1	W		✓	10/22	1200	1		✓									
3.	INFLUENT	W		✓	10/22	1200	2	✓					✓					
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. [Signature]	DATE/TIME: 10/22 12:45	RECEIVED BY: 1. [Signature]	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP: 5.6 °C
RELINQUISHED BY SAMPLER: 2. [Signature]	DATE/TIME:	RECEIVED BY: 2. [Signature]	Comments: LAB TO FILTER
RELINQUISHED BY SAMPLER: 3. [Signature]	DATE/TIME:	RECEIVED BY: 3. [Signature]	Shipment Complete ☐ YES ☐ NO

Page ____ of ____

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

Shipment Complete
☐ YES ☐ NO



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 (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488