

## Cover Page

**Order ID :** Q1949

**Project ID :** Transfer Station-SPDES

**Client :** Tully Environmental, Inc

**Lab Sample Number**

Q1949-01  
Q1949-02  
Q1949-03  
Q1949-04

**Client Sample Number**

001-WILLETS-PT-BLVD(MAY)  
Q1949-01MS  
Q1949-01MSD  
002-35TH-AVE(MAY)

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

Date: 5/8/2025



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

## **CASE NARRATIVE**

**Tully Environmental, Inc**

**Project Name: Transfer Station-SPDES**

**Project # N/A**

**Chemtech Project # Q1949**

**Test Name: Oil and Grease,Ammonia,BOD5,TSS**

### **A. Number of Samples and Date of Receipt:**

4 Water samples were received on 05/02/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Ammonia, BOD5, Metals Group 10, Oil and Grease, TSS and VOC-BTEX. This data package contains results for Oil and Grease,Ammonia,BOD5,TSS.

### **C. Analytical Techniques:**

The analysis of Oil and Grease was based on method 1664A, The analysis of TSS was based on method SM2540 D, The analysis of Ammonia was based on method SM4500-NH3 and The analysis of BOD5 was based on method SM5210 B.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (WATER-TREATMENT-DISCHARGEMS) analysis met criteria for all samples except for Ammonia due to sample matrix interference.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

### **E. Additional Comments:**

As per method 1664A, MS/MSD is required to be performed with the sample analysis.

However, Lab did not receive sufficient volume to perform the MS/MSD for Q1949

therefore Lab reported MS-MSD from Q1941.

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Signature\_\_\_\_\_

## DATA REPORTING QUALIFIERS- INORGANIC

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

<b>J</b>	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).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	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
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements
<b>H</b>	Sample Analysis Out Of Hold Time

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: Q1949

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: KETAN PATEL

Date: 05/08/2025

## LAB CHRONICLE

<b>OrderID:</b>	Q1949	<b>OrderDate:</b>	5/2/2025 11:56:00 AM
<b>Client:</b>	Tully Environmental, Inc	<b>Project:</b>	Transfer Station-SPDES
<b>Contact:</b>	Dean Devoe	<b>Location:</b>	L21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1949-01	001-WILLETS-PT-BLV D(MAY)	WATER			05/01/25 12:30	05/05/25		05/02/25
			Ammonia	SM4500-NH3			05/05/25 12:06	
			BOD5	SM5210 B			05/02/25 15:20	
			Oil and Grease	1664A			05/05/25 09:30	
			TSS	SM2540 D			05/05/25 10:00	
Q1949-04	002-35TH-AVE(MAY)	WATER			05/01/25 12:30	05/05/25		05/02/25
			Ammonia	SM4500-NH3			05/05/25 12:06	
			BOD5	SM5210 B			05/02/25 15:20	
			Oil and Grease	1664A			05/05/25 09:30	
			TSS	SM2540 D			05/05/25 10:00	



# SAMPLE DATA

## Report of Analysis

Client:	Tully Environmental, Inc	Date Collected:	05/01/25 12:30
Project:	Transfer Station-SPDES	Date Received:	05/02/25
Client Sample ID:	001-WILLETS-PT-BLVD(MAY)	SDG No.:	Q1949
Lab Sample ID:	Q1949-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	0.28		1	0.030	0.10	mg/L	05/05/25 08:45	05/05/25 12:06	SM 4500-NH3 B plus G-11
BOD5	446		1	0.20	2.00	mg/L		05/02/25 15:20	SM 5210 B-16
Oil and Grease	9.80		1	0.29	5.00	mg/L		05/05/25 09:30	1664A
TSS	597		1	1.00	4.00	mg/L		05/05/25 10:00	SM 2540 D-15

Comments: \_\_\_\_\_

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	Tully Environmental, Inc	Date Collected:	05/01/25 12:30
Project:	Transfer Station-SPDES	Date Received:	05/02/25
Client Sample ID:	002-35TH-AVE(MAY)	SDG No.:	Q1949
Lab Sample ID:	Q1949-04	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	1.90		1	0.030	0.10	mg/L	05/05/25 08:45	05/05/25 12:06	SM 4500-NH3 B plus G-11
BOD5	473		1	0.20	2.00	mg/L		05/02/25 15:20	SM 5210 B-16
Oil and Grease	6.60		1	0.29	5.00	mg/L		05/05/25 09:30	1664A
TSS	102		1	1.00	4.00	mg/L		05/05/25 10:00	SM 2540 D-15

Comments: \_\_\_\_\_

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

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\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits





# QC RESULT SUMMARY

## Initial and Continuing Calibration Verification

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**RunNo.:** LB135665

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV1</b> Ammonia as N	mg/L	0.95	1	95	90-110	05/05/2025
Sample ID: <b>CCV1</b> Ammonia as N	mg/L	0.96	1	96	90-110	05/05/2025
Sample ID: <b>CCV2</b> Ammonia as N	mg/L	0.98	1	98	90-110	05/05/2025
Sample ID: <b>CCV3</b> Ammonia as N	mg/L	0.99	1	99	90-110	05/05/2025
Sample ID: <b>CCV4</b> Ammonia as N	mg/L	0.98	1	98	90-110	05/05/2025



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### Initial and Continuing Calibration Blank Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**RunNo.:** LB135665

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB1</b> Ammonia as N	mg/L	0.034	0.0500	J	0.030	0.1	05/05/2025
Sample ID: <b>CCB1</b> Ammonia as N	mg/L	0.036	0.0500	J	0.030	0.1	05/05/2025
Sample ID: <b>CCB2</b> Ammonia as N	mg/L	0.039	0.0500	J	0.030	0.1	05/05/2025
Sample ID: <b>CCB3</b> Ammonia as N	mg/L	0.043	0.0500	J	0.030	0.1	05/05/2025
Sample ID: <b>CCB4</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	05/05/2025

## Preparation Blank Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>LB135645BL</b> BOD5	mg/L	< 0.2000	0.2000	U	0.20	2.0	05/02/2025
Sample ID: <b>LB135657BL</b> Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	05/05/2025
Sample ID: <b>LB135658BL</b> TSS	mg/L	1	2.0000	J	1	4	05/05/2025
Sample ID: <b>PB167844BL</b> Ammonia as N	mg/L	0.038	0.0500	J	0.03	0.1	05/05/2025

## Matrix Spike Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1930-01
<b>Client ID:</b>	WATER-TREATMENT-DISCHARGEMS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	2.90	OR	2.30	OR	1	1	60	*	05/05/2025

## Matrix Spike Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1930-01
<b>Client ID:</b>	WATER-TREATMENT-DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	3.20	OR	2.30	OR	1	1	90		05/05/2025

## Matrix Spike Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1941-01
<b>Client ID:</b>	EFFLUENTMS	<b>Percent Solids for Spike Sample:</b>	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	27.9		7.90		20.0	1	100		05/05/2025

## Matrix Spike Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1941-01
<b>Client ID:</b>	EFFLUENTMSD	<b>Percent Solids for Spike Sample:</b>	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	28.0		7.90		20.0	1	101		05/05/2025



## Duplicate Sample Summary

<b>Client:</b> Tully Environmental, Inc	<b>SDG No.:</b> Q1949
<b>Project:</b> Transfer Station-SPDES	<b>Sample ID:</b> Q1924-02
<b>Client ID:</b> COMPDUP	<b>Percent Solids for Spike Sample:</b> 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
BOD5	mg/L	+/-20	411		411		1	0.12		05/02/2025

## Duplicate Sample Summary

<b>Client:</b> Tully Environmental, Inc	<b>SDG No.:</b> Q1949
<b>Project:</b> Transfer Station-SPDES	<b>Sample ID:</b> Q1930-01
<b>Client ID:</b> WATER-TREATMENT-DISCHARGEDUP	<b>Percent Solids for Spike Sample:</b> 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	2.30	OR	2.20	OR	1	4		05/05/2025
Ammonia as N	mg/L	+/-20	2.40	D	2.50	D	2	4		05/05/2025

### Duplicate Sample Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1930-01
<b>Client ID:</b>	WATER-TREATMENT-DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	2.90	OR	3.20	OR	1	10		05/05/2025

## Duplicate Sample Summary

<b>Client:</b> Tully Environmental, Inc	<b>SDG No.:</b> Q1949
<b>Project:</b> Transfer Station-SPDES	<b>Sample ID:</b> Q1941-01
<b>Client ID:</b> EFFLUENTMSD	<b>Percent Solids for Spike Sample:</b> 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	27.9		28.0		1	0.36		05/05/2025

### Duplicate Sample Summary

<b>Client:</b>	Tully Environmental, Inc	<b>SDG No.:</b>	Q1949
<b>Project:</b>	Transfer Station-SPDES	<b>Sample ID:</b>	Q1949-04
<b>Client ID:</b>	002-35TH-AVE(MAY)DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	102		103		1	0.68		05/05/2025

### Laboratory Control Sample Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**Run No.:** LB135645

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135645BS							
BOD5	mg/L	198	185		93	1	84.6-115.4	05/02/2025

### Laboratory Control Sample Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**Run No.:** LB135657

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135657BS							
Oil and Grease	mg/L	20.0	16.7		84	1	78-114	05/05/2025

### Laboratory Control Sample Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**Run No.:** LB135658

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135658BS							
TSS	mg/L	550	533		97	1	90-110	05/05/2025



### Laboratory Control Sample Summary

**Client:** Tully Environmental, Inc

**SDG No.:** Q1949

**Project:** Transfer Station-SPDES

**Run No.:** LB135665

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB167844BS							
Ammonia as N	mg/L	1	0.96		96	1	90-110	05/05/2025



# RAW DATA

# BOD5 LOG

ANALYST: rubin  
Inst Id :DO METER  
LB :LB135645

Reviewed By:Iwona  
On:5/7/2025 4:10:58  
PM

SUPERVISOR: Iwona

QC BATCH ID: LB135645

Analysis Date: 05/02/2025

BOD Water: WP112929

MANGANOUS SULFATE SOLUTION: W3103

Starch: W3149

Alkaline Iodide Azide: W3109

Sulfuric acid, 1N: WP112832

Sodium Thiosulfate, 0.025N: W3105

POLYSEED: WP112931

NaOH, 1N: WP111323

GGA: WP112930

IncubatorID: INCUBATOR #3

Chlorine Strips: W3155

GuageID: 0511062

pH Strips: W3140

Zero DO: WP112724

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading (ML)	Final Reading (ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	9.7	9.7	9.7
WINKLER 2	WINKLER 2	2	300	9.9	19.6	9.7	9.7

Meter Calibration1: 9.22

Zero DO Reading1: 0.12 mg/L (<=0.2 Criteria)

Barometric Pressure1: 760 mmHg

DO Meter BOD fluid reading for winkler comparison: 9.78

## After Incubation

Meter Calibration2: 8.40

Zero DO Reading2: 0.15 mg/L (<=0.2 Criteria)

Barometric Pressure2: 760 mmHg



QC BATCH ID: LB135645

INCUBATOR TEMP IN(C): 20.0

INCUBATOR TEMP OUT(C): 20.0

TIME IN: 15:20

TIME OUT: 11:00

DATE IN: 05/02/2025

DATE OUT: 05/07/2025

Lab SampleID	Bottle No.	Check CL	Initial PH	Final PH	Temp °C	Sam Vol. (mL)	D.O.1 Initial	D.O.2 Final	Depletion	BOD Result (mg/L)	Avg Result (mg/L)	Comment
LB135645BL	1	No	6.57	N/A	20.70	300	9.78	9.76	0.02	0.02	0.02	
POLYSEED	1					10	9.62	6.19	3.43	0.69	0.67	
POLYSEED	2					15	9.54	4.63	4.91	0.65		
POLYSEED	3					20	9.52	2.92	6.6	0.66		
GGA	1					6	9.67	5.38	4.29	181	185	
GGA	2					6	9.66	5.19	4.47	190		
GGA	3					6	9.67	5.32	4.35	184		
Q1924-02	1	No	7.11	N/A	20.40	0.5	9.71	7.91	-	0	411	
Q1924-02	2					1	9.69	7.83	-	0		
Q1924-02	3					2	9.64	6.89	2.75	312		
Q1924-02	4					3	9.60	3.83	5.77	510		
Q1924-02DUP	1	No	7.11	N/A	20.40	0.5	9.70	7.98	-	0	410.5	
Q1924-02DUP	2					1	9.68	7.77	-	0		
Q1924-02DUP	3					2	9.63	6.92	2.71	306		
Q1924-02DUP	4					3	9.61	3.79	5.82	515		
Q1941-01	1	No	6.69	N/A	20.00	0.01	9.66	8.10	-	0	12600	
Q1941-01	2					0.05	9.57	7.88	-	0		
Q1941-01	3					0.1	9.55	4.68	4.87	12600		
Q1941-01	4					0.5	9.53	0.59	-	0		
Q1941-01	5					1	9.47	0.22	-	0		
Q1949-01	1	No	6.73	N/A	20.00	5	9.60	1.49	8.11	446.4	446.4	
Q1949-01	2					20	9.48	0.15	-	0		
Q1949-01	3					50	8.74	0.13	-	0		
Q1949-01	4					150	5.64	0.10	-	0		
Q1949-04	1	No	6.78	N/A	20.00	5	9.58	1.02	8.56	473.4	473.4	
Q1949-04	2					20	9.28	0.13	-	0		
Q1949-04	3					50	8.27	0.12	-	0		
Q1949-04	4					150	5.75	0.10	-	0		

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

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

WORKLIST(Hardcopy Internal Chain)

66135645

WorkList Name : bod5-5-2

WorkList ID : 189279

Department : Wet-Chemistry

Date : 05-02-2025 09:25:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1924-02 B	COMP	Water	BOD5	Cool 4 deg C	ARAM01	L31	04/30/2025	SM5210 B
Q1941-01 D	EFFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	L41	05/01/2025	SM5210 B
Q1949-01 H	001-WILLETS-PT-BLVD(MAY)	Water	BOD5	Cool 4 deg C	TULL01	L21	05/01/2025	SM5210 B
Q1949-04 H	002-35TH-AVE(MAY)	Water	BOD5	Cool 4 deg C	TULL01	L21	05/01/2025	SM5210 B

Date/Time 05/02/2025 13:06  
Raw Sample Received by: RHL wco  
Raw Sample Relinquished by: RHL wco

Date/Time 05/02/2025 15:30  
Raw Sample Received by: RHL wco  
Raw Sample Relinquished by: RHL wco

## Extraction and Analytical Summary Report

**Analysis Method:** 1664A  
**Test:** Oil and Grease  
**Run Number:** LB135657  
**Analysis Date:** 05/05/2025  
**BalanceID:** WC SC-6  
**OvenID:** WC OVEN#1

**ANALYST:** jignesh  
**REVIEWED BY:** Iwona  
**Extraction Date:** 05/05/2025  
**Extraction IN Time:** 08:25  
**Extraction OUT Time:** 08:40  
**Thermometer ID:** WET OVEN#1

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	LB135657BL	LB135657BL	WATER	1.3	1000	100	2.7453	2.7453	0	2.7454	2.7454	0.0001	0.1
2	LB135657BS	LB135657BS	WATER	1.3	1000	100	3.1523	3.1523	0	3.1690	3.1690	0.0167	16.7
3	Q1941-01	EFFLUENT	WATER	1.6	1000	100	3.0247	3.0247	0	3.0326	3.0326	0.0079	7.9
4	Q1941-02	Q1941-01MS	WATER	1.6	1000	100	2.7403	2.7403	0	2.7682	2.7682	0.0279	27.9
5	Q1941-03	Q1941-01MSD	WATER	1.6	1000	100	3.1857	3.1857	0	3.2137	3.2137	0.0280	28
6	Q1949-01	001-WILLETTS-PT-BLVD (MA	WATER	1.3	1000	100	3.0212	3.0212	0	3.0310	3.0310	0.0098	9.8
7	Q1949-04	002-35TH-AVE (MAY)	WATER	1.3	1000	100	3.0610	3.0610	0	3.0676	3.0676	0.0066	6.6

QC Batch# LB135657

**Test:** Oil and Grease

**Analysis Date:** 05/05/2025

### Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3204
pH Paper 0-14	M6069
Sodium Sulfate	EP2607
1:1 HCL	WP112782
Silica Gel	NA
Sand	NA

### Standards Used:

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

### BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

## Before Analysis

0.0020 gram Balance: 0.0018 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 10:26

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time1: 09:30

Bal Check Time: 08:35 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 11:00

Out Time1: 10:25

## After Analysis

0.0020 gram Balance: 0.0021 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 12:11

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time2: 11:30

Bal Check Time: 12:52 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 12:50

Out Time2: 12:10

# WORKLIST(Hardcopy Internal Chain)

135657

WorkList Name : OIL & GREASE Q1949      WorkList ID : 189294      Department : Wet-Chemistry      Date : 05-05-2025 08:05:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1941-01	EFFLUENT	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	L41	05/01/2025	1664A
Q1941-02	Q1941-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	L41	05/01/2025	1664A
Q1941-03	Q1941-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	L41	05/01/2025	1664A
Q1949-01	001-WILLETS-PT-BLVD(MAY)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L21	05/01/2025	1664A
Q1949-04	002-35TH-AVE(MAY)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L21	05/01/2025	1664A

Date/Time 05/05/25 08:15

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/05/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]



**TOTAL SUSPENDED SOLIDS - SM2540D**

**SUPERVISOR:** Iwona

**ANALYST:** jignesh

**Date:** 05/02/2025

**Run Number:** LB135658

**BalanceID:** WC SC-6

**OvenID:** WC OVEN#1

**FilterID:** 17416528

**ThermometerID:** WET OVEN#1

**TEMP1 IN:** 103 °C 05/02/2025 14:00 **TEMP1 OUT:** 104 °C 05/02/2025 15:00  
**TEMP2 IN:** 103 °C 05/02/2025 15:30 **TEMP2 OUT:** 104 °C 05/02/2025 16:30  
**TEMP3 IN:** 104 °C 05/05/2025 10:00 **TEMP3 OUT:** 103 °C 05/05/2025 11:30  
**TEMP4 IN:** 104 °C 05/05/2025 12:00 **TEMP4 OUT:** 103 °C 05/05/2025 13:30

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	LB135658BL	LB135658BL	1.5863	1.5863	100	1.5864	1.5864	1.5864	0.0001	1
2	LB135658BS	LB135658BS	1.6035	1.6035	100	1.6568	1.6568	1.6568	0.0533	533
3	Q1941-01	EFFLUENT	1.4971	1.4971	50	1.5287	1.5287	1.5287	0.0316	632
4	Q1941-04	AERATION	1.4992	1.4992	50	1.5843	1.5843	1.5843	0.0851	1702
5	Q1948-02	002-35TH-AVE (APR)	1.4876	1.4876	400	1.5013	1.5013	1.5013	0.0137	34.3
6	Q1949-01	001-WILLETTS-PT-BLVD (MAY)	1.4478	1.4478	100	1.5075	1.5075	1.5075	0.0597	597
7	Q1949-04	002-35TH-AVE (MAY)	1.4658	1.4658	150	1.4811	1.4811	1.4811	0.0153	102
8	Q1949-04DUP	002-35TH-AVE (MAY) DUP	1.4784	1.4784	150	1.4938	1.4938	1.4938	0.0154	102.7

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)

D = Weight (g)

Weight (g) = C - B

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

WORKLIST(Hardcopy Internal Chain)

UP 135658

WorkList Name : TSS Q1949      WorkList ID : 189293      Department : Wet-Chemistry      Date : 05-05-2025 08:04:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1941-01	D EFFLUENT	Water	TSS	Cool 4 deg C	HOLL01	L41	05/01/2025	SM2540 D
Q1941-04	AERATION	Water	TSS	Cool 4 deg C	HOLL01	L41	05/01/2025	SM2540 D
Q1948-02	B 002-35TH-AVE(APR)	Water	TSS	Cool 4 deg C	TULL01	L41	05/01/2025	SM2540 D
Q1949-01	G 001-WILLETS-PT-BLVD(MAY)	Water	TSS	Cool 4 deg C	TULL01	L21	05/01/2025	SM2540 D
Q1949-04	S 002-35TH-AVE(MAY)	Water	TSS	Cool 4 deg C	TULL01	L21	05/01/2025	SM2540 D

Date/Time 05/05/25 08:15  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

Date/Time 05/05/25 13:30  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: [Signature]

LB135665

Test results

Aquakem 7.2AQ1

Page:

CHEMTECH CONSULTING GROUP INC

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

5/5/2025 12:41

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	0.955	0.0	0.191	
ICB1	0.034	0.0	0.019	
CCV1	0.964	0.0	0.193	
CCB1	0.036	0.0	0.020	
RL CHECK	0.115	0.0	0.035	
PB167844BL	0.038	0.0	0.020	
PB167844BS	0.958	0.0	0.192	
Q1930-01	2.253	0.0	0.433	Test limit high
Q1930-01DUP	2.222	0.0	0.427	Test limit high
Q1930-01MS	2.949	0.0	0.563	Test limit high
Q1930-01MSD	3.159	0.0	0.602	Test limit high
Q1934-01	0.324	0.0	0.073	
Q1934-02	0.508	0.0	0.108	
Q1941-01	10.381	0.0	1.948	Test limit high
CCV2	0.978	0.0	0.195	
CCB2	0.039	0.0	0.020	
Q1944-02	0.040	0.0	0.021	
Q1944-03	0.200	0.0	0.050	
Q1949-01	0.279	0.0	0.065	
Q1949-04	1.913	0.0	0.370	
CCV3	0.987	0.0	0.197	
CCB3	0.043	0.0	0.021	
Q1930-01DLX2	1.198	0.0	0.236	
Q1930-01DUPDLX2	1.239	0.0	0.244	
Q1941-01DLX10	0.934	0.0	0.187	
CCV4	0.975	0.0	0.195	
CCB4	0.023	0.0	0.017	
N	27			
Mean	1.250			
SD	2.0374			
CV%	163.02			

115% (50-150)  
05/05/2025  
RM

Aquakem v. 7.2AQ1

Results from time period:

Mon May 05 10:36:33 2025

Mon May 05 12:36:25 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-† P		0.0223	mg/l	5/5/2025 10:36:33	
0.1PPM	A	Ammonia-† P		0.1077	mg/l	5/5/2025 10:36:34	
0.2PPM	A	Ammonia-† P		0.1975	mg/l	5/5/2025 10:36:35	
0.4PPM	A	Ammonia-† P		0.3948	mg/l	5/5/2025 10:36:36	
1.0PPM	A	Ammonia-† P		0.991	mg/l	5/5/2025 10:36:37	
1.3PPM	A	Ammonia-† P		1.2771	mg/l	5/5/2025 10:36:38	
2.0PPM	A	Ammonia-† P		2.0429	mg/l	5/5/2025 10:36:39	
ICV1	S	Ammonia-† P		0.9546	mg/l	5/5/2025 11:44:51	
ICB1	S	Ammonia-† P		0.0339	mg/l	5/5/2025 11:44:54	
CCV1	S	Ammonia-† P		0.9638	mg/l	5/5/2025 11:44:56	
CCB1	S	Ammonia-† P		0.036	mg/l	5/5/2025 11:44:58	
RL CHECK	S	Ammonia-† P		0.1153	mg/l	5/5/2025 11:45:02	
PB167844BL	S	Ammonia-† P		0.0384	mg/l	5/5/2025 11:55:35	
PB167844BS	S	Ammonia-† P		0.9582	mg/l	5/5/2025 11:55:37	
Q1930-01	S	Ammonia-† P		2.2526	mg/l	5/5/2025 11:55:40	
Q1930-01DUP	S	Ammonia-† P		2.2222	mg/l	5/5/2025 11:55:42	
Q1930-01MS	S	Ammonia-† P		2.9495	mg/l	5/5/2025 11:55:43	
Q1930-01MSD	S	Ammonia-† P		3.1591	mg/l	5/5/2025 11:55:44	
Q1934-01	S	Ammonia-† P		0.3236	mg/l	5/5/2025 12:06:17	
Q1934-02	S	Ammonia-† P		0.5084	mg/l	5/5/2025 12:06:18	
Q1941-01	S	Ammonia-† P		10.381	mg/l	5/5/2025 12:06:19	
CCV2	S	Ammonia-† P		0.9783	mg/l	5/5/2025 12:06:20	
CCB2	S	Ammonia-† P		0.0385	mg/l	5/5/2025 12:06:23	
Q1944-02	S	Ammonia-† P		0.0404	mg/l	5/5/2025 12:06:24	
Q1944-03	S	Ammonia-† P		0.2005	mg/l	5/5/2025 12:06:25	
Q1949-01	S	Ammonia-† P		0.279	mg/l	5/5/2025 12:06:26	
Q1949-04	S	Ammonia-† P		1.9134	mg/l	5/5/2025 12:06:27	
CCV3	S	Ammonia-† P		0.9867	mg/l	5/5/2025 12:06:28	
CCB3	S	Ammonia-† P		0.0429	mg/l	5/5/2025 12:11:48	
Q1930-01DLX2	S	Ammonia-† P		1.1978	mg/l	5/5/2025 12:36:17	
Q1930-01DUPDLX2	S	Ammonia-† P		1.2395	mg/l	5/5/2025 12:36:18	
Q1941-01DLX10	S	Ammonia-† P		0.934	mg/l	5/5/2025 12:36:20	
CCV4	S	Ammonia-† P		0.9752	mg/l	5/5/2025 12:36:22	
CCB4	S	Ammonia-† P		0.0227	mg/l	5/5/2025 12:36:25	

Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : RM Instrument ID : Konelab

5/5/2025 10:48

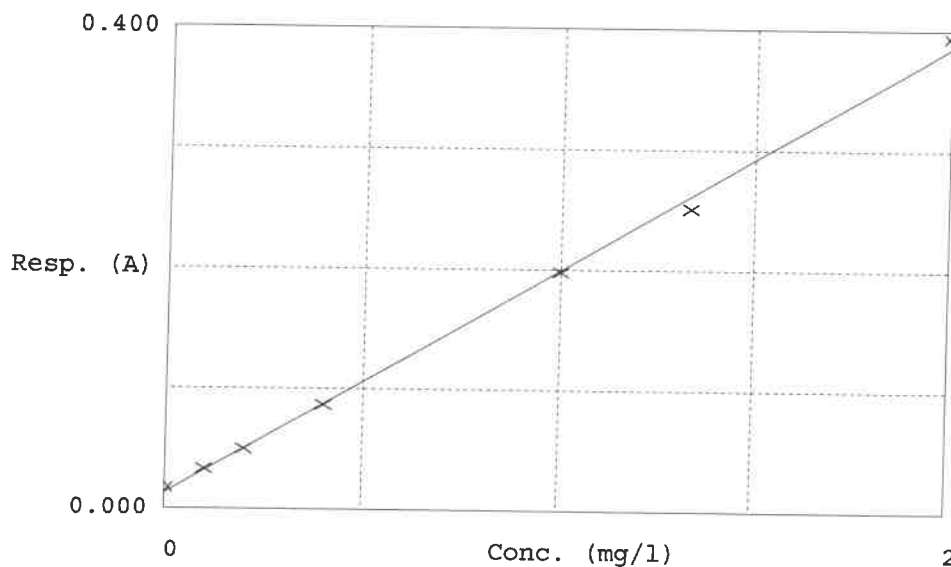
Test Ammonia-N

Accepted 5/5/2025 10:48

Factor 5.366  
Bias 0.013

Coeff. of det. 0.998321

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.017	0.0223	0.0000	-
2	NH3-2PPM	0.033	0.1077	0.1000	7.7
3	NH3-2PPM	0.050	0.1975	0.2000	-1.3
4	NH3-2PPM	0.087	0.3948	0.4000	-1.3
5	NH3-2PPM	0.198	0.9910	1.0000	-0.9
6	NH3-2PPM	0.251	1.2771	1.3333	-1.8
7	NH3-2PPM	0.394	2.0429	2.0000	2.1

05/05/2025  
RM

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: 05/05/2025 Time : 08:45 Temp : 150 °C

End Digest Date: 05/05/2025 Time : 09:45 Temp : 160 °C

D batch 05/05/2025 10:05 150 °C  
05/05/2025 11:05 160 °C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature: RH

pH Meter ID : N/A

Supervisor Signature: 12

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP112614
MS/MSD SPIKE SOL.	1.0ML	WP112613
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP112613
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP111325
NAOH 6N	1.0ML-5.0ML	WP111318
H2SO4 0.04N	5.0ML	WP112828
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

## Extraction Conformance/Non-Conformance Comments:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT WP111604. Due to bad matrix and client history 1ML was taken as an initial volume for Q1941-01

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05/05/2025 11:30	RH (WC)	RH (WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB167844BL	PB167844BL	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB167844BS	LCS844	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1930-01DUP	WATER-TREATMENT-DISCHAR GEDUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1930-01MS	WATER-TREATMENT-DISCHAR GEMS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1930-01MSD	WATER-TREATMENT-DISCHAR GEMSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1930-01	WATER-TREATMENT-DISCHAR GE	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1934-01	001-WILLETS-PT-BLVD(APR)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1934-02	002-35TH-AVE(APR)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1941-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1944-02	CITY-WATER	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1944-03	CHILLER-WATER	50	50	<2	N/A	Negative	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1949-01	001-WILLETS-PT-BLVD(MAY)	50	50	<2	N/A	Negative	N/A	PH AFTER ADDING DIST BUFFER>11	N/A
Q1949-04	002-35TH-AVE(MAY)	50	50	<2	N/A	Negative	N/A	PH AFTER ADDING DIST BUFFER>11	N/A

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : AMMOla w-5-5

WorkList ID : 189313

Department : Distillation

Date : 05-05-2025 08:08:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1930-01	WATER-TREATMENT-DISCHAI	Water	Ammonia	Conc H2SO4 to pH < 2	VERI01	L41	05/01/2025	SM4500-NH3
Q1934-01	001-WILLETS-PT-BLVD(APR)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L61	04/10/2025	SM4500-NH3
Q1934-02	002-35TH-AVE(APR)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L61	04/10/2025	SM4500-NH3
Q1941-01	EFFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	L41	05/01/2025	SM4500-NH3
Q1944-02	CITY-WATER	Water	Ammonia	Cool 4 deg C	METE01	L41	05/01/2025	SM4500-NH3
Q1944-03	CHILLER-WATER	Water	Ammonia	Cool 4 deg C	METE01	L41	05/01/2025	SM4500-NH3
Q1949-01	001-WILLETS-PT-BLVD(MAY)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L21	05/01/2025	SM4500-NH3
Q1949-04	002-35TH-AVE(MAY)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L21	05/01/2025	SM4500-NH3

Date/Time 05/05/2025 08:15  
 Raw Sample Received by: RM wcy  
 Raw Sample Relinquished by: RM wcy

Date/Time 05/05/2025 14:20  
 Raw Sample Received by: RM wcy  
 Raw Sample Relinquished by: RM wcy



**Instrument ID:** DO METER

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135645**

Review By	rubina	Review On	5/7/2025 3:55:39 PM
Supervise By	Iwona	Supervise On	5/7/2025 4:10:58 PM
SubDirectory	LB135645	Test	BOD5
<b>STD. NAME</b>	<b>STD REF.#</b>		
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	WP112929,W3149,WP112832,W3103,W3109,W3105,WP112931,WP112930,WP111323		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB135645BL	LB135645BL	MB	05/02/25 15:20		rubina	OK
2	LB135645BS	LB135645BS	LCS	05/02/25 15:20		rubina	OK
3	Q1924-02	COMP	SAM	05/02/25 15:20	Intermediate dilution-10X	rubina	OK
4	Q1924-02DUP	COMPDUP	DUP	05/02/25 15:20	Intermediate dilution-10X	rubina	OK
5	Q1941-01	EFFLUENT	SAM	05/02/25 15:20	Intermediate dilution-100X	rubina	OK
6	Q1949-01	001-WILLETS-PT-BL	SAM	05/02/25 15:20		rubina	OK
7	Q1949-04	002-35TH-AVE(MAY)	SAM	05/02/25 15:20		rubina	OK

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135657**

Review By	jignesh	Review On	5/5/2025 9:05:39 AM
Supervise By	Iwona	Supervise On	5/5/2025 11:00:33 AM
SubDirectory	LB135657	Test	Oil and Grease
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3204,M6069,EP2607,WP112782,NA,NA,WP112783,NA,WO112784		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB135657BL	LB135657BL	MB	05/05/25 09:30		jignesh	OK
2	LB135657BS	LB135657BS	LCS	05/05/25 09:30		jignesh	OK
3	Q1941-01	EFFLUENT	SAM	05/05/25 09:30		jignesh	OK
4	Q1941-02	Q1941-01MS	MS	05/05/25 09:30		jignesh	OK
5	Q1941-03	Q1941-01MSD	MSD	05/05/25 09:30		jignesh	OK
6	Q1949-01	001-WILLETS-PT-BL	SAM	05/05/25 09:30		jignesh	OK
7	Q1949-04	002-35TH-AVE(MAY)	SAM	05/05/25 09:30		jignesh	OK

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135658**

Review By	jignesh	Review On	5/5/2025 11:10:49 AM
Supervise By	Iwona	Supervise On	5/5/2025 3:00:09 PM
SubDirectory	LB135658	Test	TSS
<b>STD. NAME</b>	<b>STD REF.#</b>		
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	LB135658BL	LB135658BL	MB	05/05/25 10:00		jignesh	OK
2	LB135658BS	LB135658BS	LCS	05/05/25 10:00		jignesh	OK
3	Q1941-01	EFFLUENT	SAM	05/05/25 10:00		jignesh	OK
4	Q1941-04	AERATION	SAM	05/05/25 10:00		jignesh	OK
5	Q1948-02	002-35TH-AVE(APR)	SAM	05/05/25 10:00		jignesh	OK
6	Q1949-01	001-WILLETTS-PT-BL	SAM	05/05/25 10:00		jignesh	OK
7	Q1949-04	002-35TH-AVE(MAY)	SAM	05/05/25 10:00		jignesh	OK
8	Q1949-04DUP	002-35TH-AVE(MAY)	DUP	05/05/25 10:00		jignesh	OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135665**

Review By	rubina	Review On	5/5/2025 2:45:01 PM
Supervise By	Iwona	Supervise On	5/5/2025 4:40:09 PM
SubDirectory	LB135665	Test	Ammonia
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP112946		
ICV Standard	WP112948		
CCV Standard	WP112947		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP112614		
Chk Standard	WP112897,WP111745,WP111385,WP111660		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	05/05/25 10:36		rubina	OK
2	0.1PPM	0.1PPM	CAL2	05/05/25 10:36		rubina	OK
3	0.2PPM	0.2PPM	CAL3	05/05/25 10:36		rubina	OK
4	0.4PPM	0.4PPM	CAL4	05/05/25 10:36		rubina	OK
5	1.0PPM	1.0PPM	CAL5	05/05/25 10:36		rubina	OK
6	1.3PPM	1.3PPM	CAL6	05/05/25 10:36		rubina	OK
7	2.0PPM	2.0PPM	CAL7	05/05/25 10:36		rubina	OK
8	ICV1	ICV1	ICV	05/05/25 11:44		rubina	OK
9	ICB1	ICB1	ICB	05/05/25 11:44		rubina	OK
10	CCV1	CCV1	CCV	05/05/25 11:44		rubina	OK
11	CCB1	CCB1	CCB	05/05/25 11:44		rubina	OK
12	RL	RL	SAM	05/05/25 11:45		rubina	OK
13	PB167844BL	PB167844BL	MB	05/05/25 11:55		rubina	OK
14	PB167844BS	PB167844BS	LCS	05/05/25 11:55		rubina	OK
15	Q1930-01	WATER-TREATMENT	SAM	05/05/25 11:55	NH3 is High	rubina	Dilution
16	Q1930-01DUP	WATER-TREATMENT	DUP	05/05/25 11:55	NH3 is High	rubina	Dilution
17	Q1930-01MS	WATER-TREATMENT	MS	05/05/25 11:55		rubina	OK
18	Q1930-01MSD	WATER-TREATMENT	MSD	05/05/25 11:55		rubina	OK

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135665**

Review By	rubina	Review On	5/5/2025 2:45:01 PM
Supervise By	Iwona	Supervise On	5/5/2025 4:40:09 PM
SubDirectory	LB135665	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP112946		
ICV Standard	WP112948		
CCV Standard	WP112947		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP112614		
Chk Standard	WP112897,WP111745,WP111385,WP111660		

19	Q1934-01	001-WILLETS-PT-BLV	SAM	05/05/25 12:06		rubina	OK
20	Q1934-02	002-35TH-AVE(APR)	SAM	05/05/25 12:06		rubina	OK
21	Q1941-01	EFFLUENT	SAM	05/05/25 12:06	NH3 is High	rubina	Dilution
22	CCV2	CCV2	CCV	05/05/25 12:06		rubina	OK
23	CCB2	CCB2	CCB	05/05/25 12:06		rubina	OK
24	Q1944-02	CITY-WATER	SAM	05/05/25 12:06		rubina	OK
25	Q1944-03	CHILLER-WATER	SAM	05/05/25 12:06		rubina	OK
26	Q1949-01	001-WILLETS-PT-BLV	SAM	05/05/25 12:06		rubina	OK
27	Q1949-04	002-35TH-AVE(MAY)	SAM	05/05/25 12:06		rubina	OK
28	CCV3	CCV3	CCV	05/05/25 12:06		rubina	OK
29	CCB3	CCB3	CCB	05/05/25 12:11		rubina	OK
30	Q1930-01DL	WATER-TREATMENT	SAM	05/05/25 12:36	2x For NH3	rubina	Confirms
31	Q1930-01DUPDL	WATER-TREATMENT	DUP	05/05/25 12:36	2x For NH3	rubina	Confirms
32	Q1941-01DL	EFFLUENTDL	SAM	05/05/25 12:36	10X For NH3	rubina	Confirms
33	CCV4	CCV4	CCV	05/05/25 12:36		rubina	OK
34	CCB4	CCB4	CCB	05/05/25 12:36		rubina	OK

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1949

**Test :** Ammonia,BOD5,Oil and Grease,TSS

**Prepbatch ID :** PB167844,

**Sequence ID/Qc Batch ID:** LB135645, LB135657, LB135658, LB135665,

**Standard ID :**

EP2607, WP111317, WP111318, WP111323, WP111325, WP111385, WP111660, WP111745, WP112611, WP112612, WP112613, WP112614, WP112782, WP112783, WP112828, WP112832, WP112897, WP112929, WP112930, WP112931, WP112946, WP112947, WP112948,

**Chemical ID :**

E3551, E3917, M6041, M6069, M6151, W2653, W2654, W2666, W2700, W2817, W2858, W2871, W3059, W3103, W3105, W3109, W3112, W3113, W3132, W3133, W3144, W3149, W3155, W3174, W3195, W3196, W3204, WO 112784,



<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	<a href="#">EP2607</a>	04/25/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel  04/25/2025
<b><u>FROM</u></b> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram								

<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	<a href="#">WP111317</a>	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCS-6)	None	Iwona Zarych 01/09/2025
<u>FROM</u>	4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1471	NaOH Solution, 6N	<a href="#">WP111318</a>	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych 01/09/2025
<b><u>FROM</u></b> 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>
1571	Sodium hydroxide, 1N	<a href="#">WP111323</a>	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych  01/09/2025
<b><u>FROM</u></b> 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	<a href="#">WP111325</a>	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS)	None	Iwona Zarych 01/09/2025
<u>FROM</u>	100.00000L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP111317 = Final Quantity: 100.000 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	<a href="#">WP111385</a>	01/13/2025	07/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC-7)	None	Iwona Zarych 01/13/2025
<b><u>FROM</u></b> 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>
635	EDTA BUFFER FOR AMMONIA	<a href="#">WP111660</a>	01/28/2025	07/28/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 01/28/2025
<b><u>FROM</u></b> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
289	Sodium Hypochlorite for Ammonia	<a href="#">WP111745</a>	02/03/2025	07/31/2025	Rubina Mughal	None	None	Iwona Zarych 02/03/2025
<b><u>FROM</u></b> 50.00000ml of W3112 + 50.00000ml of W3174 = 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)	<a href="#">WP112611</a>	04/07/2025	10/07/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 04/07/2025
<b><u>FROM</u></b> 3.81900gram of W3196 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1895	Ammonia Stock Std, 1000PPM-SS	<a href="#">WP112612</a>	04/07/2025	10/07/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych  04/07/2025
<u>FROM</u>	3.81900gram of W3195 + 996.18100ml 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>
1322	Ammonia Intermediate Std, 50PPM	<a href="#">WP112613</a>	04/07/2025	05/07/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  04/07/2025
<b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP112611 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1639	Ammonia Intermediate Std-Second source, 50PPM	<a href="#">WP112614</a>	04/07/2025	05/07/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  04/07/2025
<b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP112612 = 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>
229	1:1 HCL	<a href="#">WP112782</a>	04/22/2025	08/18/2025	Jignesh Parikh	None	None	Iwona Zarych
								04/22/2025

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

<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	<a href="#">WP112783</a>	04/22/2025	10/03/2025	Jignesh Parikh	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych
								04/22/2025

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



<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	<a href="#">WP112828</a>	04/25/2025	10/25/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/25/2025
<b>FROM</b> 1.00000ml of M6041 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1841	Sulfuric Acid, 1N	<a href="#">WP112832</a>	04/25/2025	10/25/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 04/25/2025
<b>FROM</b> 2.80000ml of M6041 + 97.20000ml 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>
740	sodium nitroferricyanide for ammonia	<a href="#">WP112897</a>	04/30/2025	05/30/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 05/01/2025
<b><u>FROM</u></b> 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>
127	BOD Dilution fluid	<a href="#">WP112929</a>	05/02/2025	05/03/2025	Rubina Mughal	None	None	Iwona Zarych 05/05/2025
<b><u>FROM</u></b> 18.00000L of W3112 + 3.00000PILLOW of W3144 = Final Quantity: 18.000 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>
129	Glutamic acid-glucose mix for BOD	<a href="#">WP112930</a>	05/02/2025	05/03/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCS-6)	None	Iwona Zarych 05/05/2025
<b><u>FROM</u></b> 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>PipettelD</u>	<u>Supervised By</u>
128	polyseed seed control	<a href="#">WP112931</a>	05/02/2025	05/03/2025	Rubina Mughal	None	None	Iwona Zarych 05/05/2025
<b><u>FROM</u></b> 1.00000PILLOW of W3059 + 300.00000ml of WP112929 = Final Quantity: 300.000 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>
275	Ammonia Calibration Std. (2 ppm)	<a href="#">WP112946</a>	05/05/2025	05/06/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  05/05/2025
<b>FROM</b> 48.00000ml of W3112 + 2.00000ml of WP112613 = 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)	<a href="#">WP112947</a>	05/05/2025	05/06/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  05/05/2025
<b>FROM</b> 49.00000ml of W3112 + 1.00000ml of WP112613 = 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)	<a href="#">WP112948</a>	05/05/2025	05/06/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 05/05/2025
<b><u>FROM</u></b> 49.00000ml of W3112 + 1.00000ml of WP112614 = 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	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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

## CHEMICAL RECEIPT LOG BOOK

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.	87683 / Sodium Nitroferricyanide 250g	W12F013	02/10/2030	02/10/2020 / apatel	02/10/2020 / apatel	W2666

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	2019111354	04/23/2025	04/23/2020 / apatel	03/11/2020 / apatel	W2700

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

## CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

## CHEMICAL RECEIPT LOG BOOK

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 #
HACH	1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk	A4169	06/30/2029	11/20/2024 / rubina	10/01/2024 / lwona	W3144

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

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

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

### CHEMICAL RECEIPT LOG BOOK

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

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

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

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 ( $\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$ ) (by GC)	$\geq 99.0 \%$	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

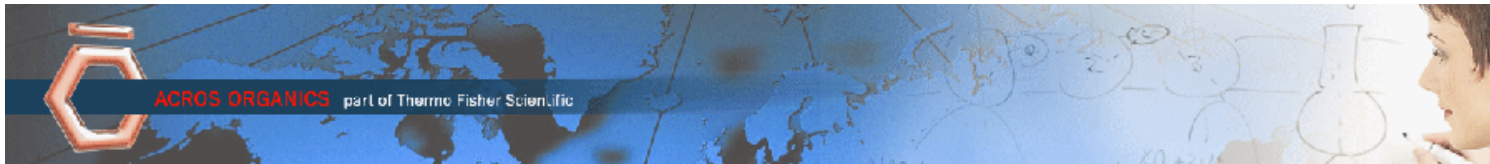
Test	Limits	Results
Assay	99.0 - 102.0 %	99.67 %
Insoluble	0.01 % max	0.0079 %
Chloride	0.02 % max	Not detected
Sulfate	To pass test	Passes test
Aqueous solubility	To pass test	Passes test
Limit on Ferricyanide	To pass test	Passes test
Limit on Ferrocyanide	To pass test	Passes test


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**ACROS ORGANICS**  
part of Thermo Fisher Scientific





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

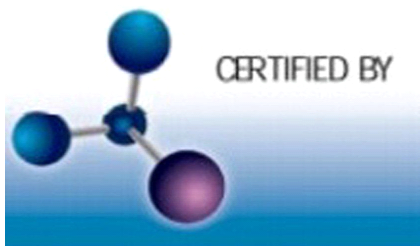
## Certificate of Analysis

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<b>Catalog Number</b>	15621	<b>Quality Test / Release Date</b>	13 March 2019
<b>Lot Number</b>	A0405990	<b>Suggested Retest Date</b>	March 2022
<b>Description</b>	L(+)-Glutamic acid, 99%		
<b>Country of Origin</b>	CHINA		
<b>Declaration of Origin</b>	plant		

<b>Origin Comment</b>	The product is made by fermentation of sugar molasses
-----------------------	---

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



A handwritten signature in black ink, which appears to read "L. Van den Broek".

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

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

**CAS Number:** 57-11-4  
**Molecular Formula:** C<sub>18</sub>H<sub>36</sub>O<sub>2</sub>  
**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

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  $4.00 \times 10^9$  cfu/g.

**GLUCOSE/GLUTAMIC-ACID RESULTS:**

Tested results within acceptable range  $198 \pm 30.5$  mg/L (167.5 - 228.5 mg/L). GGA Lot# L257-09 – Average Test Result: 203.4

See [www.polyseed.com](http://www.polyseed.com) for details.

**SEED CONTROL FACTOR:**

Tested results within acceptable range 0.6 – 1.0 see [www.polyseed.com](http://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 <sub>2</sub> B <sub>4</sub> O <sub>7</sub> • 10H <sub>2</sub> 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 <sub>4</sub> )	0.001% max.	<0.001%
Sulfate (SO <sub>4</sub> )	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

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

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

*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 <sub>2</sub> SO <sub>4</sub>
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na <sub>2</sub> SO <sub>4</sub> )	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 <sub>4</sub> )	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

Acetone

BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

## Certificate of Analysis

Test	Specification	Result
Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H <sub>2</sub> O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 03/31/25

E3917

Jamie Croak  
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

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

avantor™



M 6041-4b  
MS

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

## Certificate of Analysis

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

>>> Continued on page 2 >>>

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

 **avantor™**



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

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

For Laboratory, Research, or Manufacturing Use

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

  
Jamie Ethier  
Vice President Global Quality



## 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.



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

 **avantor™**



M6151

R → 11/15/25

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

## Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl <sub>2</sub> )	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO <sub>4</sub> )	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO <sub>4</sub> )	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO <sub>3</sub> )	≤ 0.8 ppm	0.3 ppm
Ammonium (NH <sub>4</sub> )	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

 **avantorsm**



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

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

>>> Continued on page 3 >>>

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



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

Test	Specification	Result
------	---------------	--------

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

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

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





# Certificate of Analysis

**Manganous Sulfate Solution, 364 g/L****Lot Number:** 2403J02**Product Number:** 4620**Manufacture Date:** MAR 15, 2024**Expiration Date:** MAR 2026

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

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

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

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
4620-32	1 L natural poly	24 months

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



Jose Pena (03/15/2024)

Operations Manager

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

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

# 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

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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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## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.



## Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	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 <sub>2</sub> ) <sub>3</sub> 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.



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

## Certificate of Analysis

*This is a Component of 1486266 / LOT A4169*

**PRODUCT:** BOD Nutrient Buffer Pillows

**PRODUCT NUMBER:** 1486227

**LOT NUMBER:** A4169

**MANUFACTURE DATE:** 06/24/2024

**DATE OF ANALYSIS:** 07/03/2024

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

The expiration date is Jun 2029

Certified by: *Scott Als*

Analytical Services Chemist



# 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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# Certificate of Analysis

## Sodium Hypochlorite Solution, 5% available Chlorine

**Lot Number:** 2501J28**Product Number:** 7495.5**Manufacture Date:** JAN 17, 2025**Expiration Date:** JUL 2025

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

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

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

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

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7495.5-1	4 L black poly	6 months
7495.5-16	500 mL amber poly	6 months
7495.5-32	1 L amber poly	6 months
7495.5-8	250 mL amber poly	6 months

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

Jose Pena (01/17/2025)  
Operations Manager

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W3195 Received on 03/19/2025 by IZ

# Certificate of Analysis



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

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

Internal ID #: 710

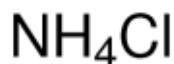
Signature	Additional Information
We certify that this batch conforms to the specifications listed above.  This document has been electronically produced and is valid without a signature.  Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA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

W3196 Received on 03/19/2025 by IZ

## Certificate of Analysis

Product Name:

Ammonium chloride - ACS reagent, ≥99.5%



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

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



Larry Coers, Director

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



## Certificate of Analysis

**Product Number:** 213330  
**Batch Number:** MKCV1009

---

Quality Control  
Milwaukee, WI US

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





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

avantor™



W3204  
084K: 09/22/2025  
38

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

## Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	$\leq 5$	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	$\leq 10$	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	$\leq 5$	5
Assay (Total Saturated C <sub>6</sub> Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	$\leq 10$	10
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.1 ppm
Substances Darkened by H <sub>2</sub> SO <sub>4</sub>	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	$< 0.01 \%$

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

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

*J. Croak*

Jamie Croak  
Director Quality Operations, Bioscience Production

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



# SHIPPING DOCUMENTS



284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 788-9222

www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number:

Q1949/50

COC Number:

CLIENT INFORMATION

PROJECT INFORMATION

BILLING INFORMATION

COMPANY: Tully Environmental Inc.

PROJECT NAME: Transfer Station SPDES

BILL TO: Same

PO#

ADDRESS: 57 Seaview Blvd

PROJECT #: 252113

LOCATION:

ADDRESS:

CITY: Pt Washington STATE: NY ZIP: 11050

PROJECT MANAGER:

CITY:

STATE: ZIP:

ATTENTION: Dean Devoe

E-MAIL:

ATTENTION:

PHONE:

PHONE: 718 446 7000

FAX:

PHONE:

FAX:

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX: \_\_\_\_\_ DAYS\*  
HARD COPY: \_\_\_\_\_ DAYS\*  
EDD \_\_\_\_\_ DAYS\*

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☐ RESULTS + QC ☐ New York State ASP "B"  
☐ New Jersey REDUCED ☐ New York State ASP "A"  
☐ New Jersey CLP ☐ Other \_\_\_\_\_  
☐ EDD Format \_\_\_\_\_

1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

CHEMTECH  
SAMPLE  
ID

PROJECT  
SAMPLE IDENTIFICATION

SAMPLE  
MATRIX

SAMPLE  
TYPE

SAMPLE  
COLLECTION

# of Bottles

COMP GRAB

DATE

TIME

1

2

3

4

5

6

7

8

9

<-- Specify Preservatives  
A-HCl B-HNO3  
C-H2SO4 D-NaOH  
E-ICE F-Other

1.

001 Willets Pt Blvd (May)

W

X

5/1/25

12:30

14

X

X

X

X

X

X

pH 1.9 / pH 1.3

2.

002 35th Ave (May)

W

X

5/1/25

12:30

13

X

X

X

X

X

X

pH 1.9 / pH 1.3

3.

4.

5.

6.

7.

8.

9.

10.

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

RELINQUISHED BY SAMPLER

DATE/TIME May  
1, 2025

RECEIVED BY

1. D Devoe

1.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp

MeOH extraction requires an additional 4oz. Jar for percent solid

☐ Ice in Cooler? yes

RELINQUISHED BY

DATE/TIME

RECEIVED BY

2.

DATE/TIME

RECEIVED BY

Comments:

IR-Gon # 1 "Adjust Factor + 1"

RELINQUISHED BY

DATE/TIME

RECEIVED FOR LAB BY

3.

3.

Page \_\_\_\_\_ of \_\_\_\_\_

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight

ALLIANCE: ☐ Picked Up ☐ Overnight

Shipment Complete

☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT

YELLOW - ALLIANCE COPY

PINK - SAMPLER COPY

### Laboratory Certification

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

## LOGIN REPORT/SAMPLE TRANSFER

<b>Order ID :</b> Q1949	TULL01	<b>Order Date :</b> 5/2/2025 11:56:00 AM	<b>Project Mgr :</b> Yazmeen
<b>Client Name :</b> Tully Environmental, Inc		<b>Project Name :</b> Transfer Station-SPDES	<b>Report Type :</b> Results Only
<b>Client Contact :</b> Dean Devoe		<b>Receive DateTime :</b> 5/2/2025 11:20:00 AM	<b>EDD Type :</b> EXCEL NOCLEANUP
<b>Invoice Name :</b> Tully Environmental, Inc		<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Dean Devoe			<b>Date Signoff :</b> 5/2/2025 12:51:40 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1949-01	001-WILLETS-PT-BLVD(MAY)	Water	05/01/2025	12:30	VOC-BTEX		624.1	5 Bus. Days	
Q1949-02	Q1949-01MS	Water	05/01/2025	12:30	VOC-BTEX		624.1	5 Bus. Days	
Q1949-03	Q1949-01MSD	Water	05/01/2025	12:30	VOC-BTEX		624.1	5 Bus. Days	
Q1949-04	002-35TH-AVE(MAY)	Water	05/01/2025	12:30	VOC-BTEX		624.1	5 Bus. Days	

Relinquished By : 

Date / Time :

5/2/25 12:55

Received By : 

Date / Time :

5/2/25 12:55

Storage Area : VOA Refridgerator Room