

## Cover Page

**Order ID :** Q2116

**Project ID :** AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co

**Client :** ATG-GREENVILLE AEC

**Lab Sample Number**

Q2116-01

**Client Sample Number**

OUTFALL-2

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: 5/29/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## 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 #: Q2116

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 Castody

✓

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: MAHESH PATEL

Date: 05/29/2025

## LAB CHRONICLE

<b>OrderID:</b>	Q2116	<b>OrderDate:</b>	5/22/2025 2:34:02 PM
<b>Client:</b>	ATG-GREENVILLE AEC	<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus
<b>Contact:</b>	Daniel Maalouf	<b>Location:</b>	001, VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2116-01	OUTFALL-2	Water			05/21/25 13:10			05/22/25
			COD	SM5220 D			05/28/25 13:17	
			Oil and Grease	1664A			05/27/25 10:00	



# SAMPLE DATA

## Report of Analysis

Client:	ATG-GREENVILLE AEC	Date Collected:	05/21/25 13:10
Project:	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	Date Received:	05/22/25
Client Sample ID:	OUTFALL-2	SDG No.:	Q2116
Lab Sample ID:	Q2116-01	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
COD	18.5		1	1.50	10.0	mg/L		05/28/25 13:17	SM 5220 D-11
Oil and Grease	0.29	U	1	0.29	5.00	mg/L		05/27/25 10:00	1664A

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

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY

## Initial and Continuing Calibration Verification

**Client:** ATG-GREENVILLE AEC

**SDG No.:** Q2116

**Project:** AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co

**RunNo.:** LB135932

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: COD	<b>ICV</b>	mg/L	50.962	50	102	95-105	05/28/2025
Sample ID: COD	<b>CCV1</b>	mg/L	48.931	50	98	95-105	05/28/2025
Sample ID: COD	<b>CCV2</b>	mg/L	50.962	50	102	95-105	05/28/2025



### Initial and Continuing Calibration Blank Summary

**Client:** ATG-GREENVILLE AEC

**SDG No.:** Q2116

**Project:** AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co

**RunNo.:** LB135932

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	<b>ICB</b>							
COD		mg/L	< 5.0000	5.0000	U	1.50	10	05/28/2025
Sample ID:	<b>CCB1</b>							
COD		mg/L	< 5.0000	5.0000	U	1.50	10	05/28/2025
Sample ID:	<b>CCB2</b>							
COD		mg/L	< 5.0000	5.0000	U	1.50	10	05/28/2025

## Preparation Blank Summary

**Client:** ATG-GREENVILLE AEC

**SDG No.:** Q2116

**Project:** AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>LB135911BL</b>							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	05/27/2025
Sample ID: <b>LB135932BL</b>							
COD	mg/L	< 5.0000	5.0000	U	1.5	10.0	05/28/2025

### Matrix Spike Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Sample ID:</b>	Q2116-01
<b>Client ID:</b>	OUTFALL-2MS	<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
COD	mg/L	75-125	65.2		18.5		50.0	1	93		05/28/2025

### Matrix Spike Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Sample ID:</b>	Q2116-01
<b>Client ID:</b>	OUTFALL-2MSD	<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
COD	mg/L	75-125	64.2		18.5		50.0	1	91		05/28/2025

### Duplicate Sample Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Sample ID:</b>	LB135911BS
<b>Client ID:</b>	LB135911BSD	<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	16.9		17.1		1	1.18		05/27/2025

## Duplicate Sample Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Sample ID:</b>	Q2116-01
<b>Client ID:</b>	OUTFALL-2DUP	<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
COD	mg/L	+/-20	18.5		19.5		1	5.26		05/28/2025

## Duplicate Sample Summary

<b>Client:</b> ATG-GREENVILLE AEC	<b>SDG No.:</b> Q2116
<b>Project:</b> AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Sample ID:</b> Q2116-01
<b>Client ID:</b> OUTFALL-2MSD	<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
COD	mg/L	+/-20	65.2		64.2		1	1.55		05/28/2025

### Laboratory Control Sample Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Run No.:</b>	LB135911

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135911BS							
Oil and Grease	mg/L	20.0	16.9		84	1	78-114	05/27/2025



### Laboratory Control Sample Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Run No.:</b>	LB135911

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135911BSD							
Oil and Grease	mg/L	20.0	17.1		86	1	78-114	05/27/2025

### Laboratory Control Sample Summary

<b>Client:</b>	ATG-GREENVILLE AEC	<b>SDG No.:</b>	Q2116
<b>Project:</b>	AEC-2025-0013- 14 Fisher Lane, White Plains Bus Co	<b>Run No.:</b>	LB135932

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB135932BS							
COD	mg/L	50	49.9		100	1	90-110	05/28/2025



# RAW DATA

## Extraction and Analytical Summary Report

**Analysis Method:** 1664A  
**Test:** Oil and Grease  
**Run Number:** LB135911  
**Analysis Date:** 05/27/2025  
**BalanceID:** WC SC-6  
**OvenID:** EXT OVEN-3

**ANALYST:** jignesh  
**REVIEWED BY:** Iwona  
**Extraction Date:** 05/27/2025  
**Extraction IN Time:** 09:00  
**Extraction OUT Time:** 09:35  
**Thermometer ID:** EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Silica Gel Weight (g)	Weight After Drying (g)	Final Weight After Drying (g)	Change Weight (g)	Result in ppm
1	LB135911BL	LB135911BL	WATER	1.3	1000	100	2.7453	2.7453	0	2.7454	2.7454	0.0001	0.1
2	LB135911BS	LB135911BS	WATER	1.3	1000	100	3.1503	3.1503	0	3.1672	3.1672	0.0169	16.9
3	LB135911BSD	LB135911BSD	WATER	1.3	1000	100	3.1987	3.1987	0	3.2158	3.2158	0.0171	17.1
4	Q2115-01	OUTFALL-1	WATER	1.6	1000	100	3.0830	3.0830	0	3.0841	3.0841	0.0011	1.1
5	Q2116-01	OUTFALL-2	WATER	1.3	570	100	3.0919	3.0919	0	3.0920	3.0920	0.0001	0.18
6	Q2126-07	LOD-MDL-WATER-01-QT2-2	WATER	1.3	1000	100	3.0621	3.0621	0	3.0643	3.0643	0.0022	2.2
7	Q2126-08	LOQ-WATER-02-QT2-2025	WATER	1.3	1000	100	2.8503	2.8503	0	2.8546	2.8546	0.0043	4.3



**Alliance**  
TECHNICAL GROUP

**Test:** Oil and Grease

**Analysis Date:** 05/27/2025

### Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3204
pH Paper 0-14	M6069
Sodium Sulfate	EP2614
1:1 HCL	WP112782
Silica Gel	NA
Sand	NA

### Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP112783
LCSWD	2.5 ML	WP112784
MS/MSD	NA	NA

### BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

## Before Analysis

0.0020 gram Balance: 0.0019 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 11:21

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 10:00

Bal Check Time: 09:15 Out OVEN TEMP1: 71 °C Dessicator Time Out1: 12:00

Out Time1: 11:20

## After Analysis

0.0020 gram Balance: 0.0021 (0.0018-0.0022) In OVEN TEMP2 : 70 °C Dessicator Time In2 : 13:01

1.0000 gram Balance: 1.0003 (0.9950-1.0050) In Time2: 12:30

Bal Check Time: 13:37 Out OVEN TEMP2: 70 °C Dessicator Time Out2: 13:35

Out Time2: 13:00

# WORKLIST(Hardcopy Internal Chain)

LB135911

WorkList Name : OIL & GREASE Q2126      WorkList ID : 189745      Department : Wet-Chemistry      Date : 05-27-2025 08:21:10

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2115-01	OUTFALL-1	Water	Oil and Grease	Conc H2SO4 to pH < 2	ATGG01	L41	05/21/2025	1664A
Q2116-01	OUTFALL-2	Water	Oil and Grease	Conc H2SO4 to pH < 2	ATGG01	L31	05/21/2025	1664A
Q2126-07	LOD-MDL-WATER-01-QT2-202	Water	Oil and Grease	Conc H2SO4 to pH < 2	ALLI03	QA Of	05/23/2025	1664A
Q2126-08	LOQ-WATER-02-QT2-2025	Water	Oil and Grease	Conc H2SO4 to pH < 2	ALLI03	QA Of	05/23/2025	1664A

Date/Time 05/27/25 08:25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/27/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

151.00

[Signature]

[Signature]

## Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Iwona

Parameter: COD

SUPERVISOR REVIEW BY: jignesh

Run Number: LB135932

Reagent/Standard	Lot/Log #
COD calibration std. 150 ppm	WP113238
COD calibration std. 100 ppm	WP113237
COD calibration std. 50 ppm	WP113235
COD calibration std. 10 ppm	WP113234
COD calibration std. 0 ppm	WP113233
COD LOQ std, 10.0PPM	WP113242
COD CCV std, 50ppm	WP113239
COD ICV-LCS std, 50ppm	WP113240
COD LOD std, 5ppm	WP113241
COD calibration std. 75 ppm	WP113236
RL CHECK	WP113243
COD Digestion Vials Low Level 0-150Mg/L	W3128

Temp In (C): 148	Date In: 05/28/2025	Time In: 09:45
Temp Out (C): 151	Date Out: 05/28/2025	Time Out: 11:45

Intercept: 0.8179

Slope: 0.9847

Regression: 0.9995

Seq	Lab ID	TrueValue (mg/l)	DF	MATRIX	Reading	Result (mg/l)	%D	Anal Date	Anal Time
1	CAL1	0	1	Water	0.000	-0.831		05/28/2025	13:10
2	CAL2	10	1	Water	9.000	8.309	-16.9	05/28/2025	13:10
3	CAL3	50	1	Water	52.000	51.977	4	05/28/2025	13:11
4	CAL4	75	1	Water	77.000	77.366	3.2	05/28/2025	13:11
5	CAL5	100	1	Water	99.000	99.708	-0.3	05/28/2025	13:12
6	CAL6	150	1	Water	147.000	148.453	-1	05/28/2025	13:12

## Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Iwona

Parameter: COD

SUPERVISOR REVIEW BY: jignesh

Run Number: LB135932

Seq	Lab ID	True Value (mg/l)	Initial Weight (g)	Final Vol (ml)	DF	MATRIX	Reading	Result	AnalDate	AnalTime
1	ICV	50	NA	NA	1	Water	51.000	50.962	05/28/2025	13:13
2	ICB		NA	NA	1	Water	0.000	-0.831	05/28/2025	13:13
3	CCV1	50	NA	NA	1	Water	49.000	48.931	05/28/2025	13:14
4	CCB1		NA	NA	1	Water	1.000	0.185	05/28/2025	13:14
5	RL Check	10	100	100	1	Water	11.000	10.340	05/28/2025	13:15
6	LB135932BL		NA	NA	1	Water	1.000	0.185	05/28/2025	13:15
7	LB135932BS	50	NA	NA	1	Water	50.000	49.946	05/28/2025	13:16
8	Q2115-01		NA	NA	5	Water	34.000	33.698	05/28/2025	13:16
9	Q2116-01		NA	NA	1	Water	19.000	18.465	05/28/2025	13:17
10	Q2116-01DUP		NA	NA	1	Water	20.000	19.480	05/28/2025	13:17
11	Q2116-01MS	50	NA	NA	1	Water	65.000	65.179	05/28/2025	13:18
12	Q2116-01MSD	50	NA	NA	1	Water	64.000	64.164	05/28/2025	13:18
13	Q2126-07		NA	NA	1	Water	11.000	10.340	05/28/2025	13:19
14	Q2126-08		NA	NA	1	Water	5.000	4.247	05/28/2025	13:19
15	CCV2	50	NA	NA	1	Water	51.000	50.962	05/28/2025	13:20
16	CCB2		NA	NA	1	Water	1.000	0.185	05/28/2025	13:20



# WORKLIST(Hardcopy Internal Chain)

LB135932

WorkList Name : COD-052825

WorkList ID : 189780

Department : Wet-Chemistry

Date : 05-28-2025 09:23:41

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2115-01	OUTFALL-1	Water	COD	Conc H2SO4 to pH < 2	ATGG01	L41	05/21/2025	SM5220 D
Q2116-01	OUTFALL-2	Water	COD	Conc H2SO4 to pH < 2	ATGG01	L31	05/21/2025	SM5220 D
Q2126-07	LOD-MDL-WATER-01-QT2-202	Water	COD	Conc H2SO4 to pH < 2	ALLI03	QA Of	05/23/2025	SM5220 D
Q2126-08	LOQ-WATER-02-QT2-2025	Water	COD	Conc H2SO4 to pH < 2	ALLI03	QA Of	05/23/2025	SM5220 D

Date/Time 05/28/25 09:25  
 Raw Sample Received by: 12/21  
 Raw Sample Relinquished by: [Signature]

Date/Time 05/28/25 10:15  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: 12/21

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135911**

Review By	jignesh	Review On	5/27/2025 12:22:15 PM
Supervise By	Iwona	Supervise On	5/28/2025 10:44:02 AM
SubDirectory	LB135911	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,EP2614,WP112782,NA,NA,WP112783,WP112784,NA		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB135911BL	LB135911BL	MB	05/27/25 10:00		jignesh	OK
2	LB135911BS	LB135911BS	LCS	05/27/25 10:00		jignesh	OK
3	LB135911BSD	LB135911BSD	LCSD	05/27/25 10:00		jignesh	OK
4	Q2115-01	OUTFALL-1	SAM	05/27/25 10:00		jignesh	OK
5	Q2116-01	OUTFALL-2	SAM	05/27/25 10:00		jignesh	OK
6	Q2126-07	LOD-MDL-WATER-01	SAM	05/27/25 10:00	ADD 0.25 ML WP112783	jignesh	OK
7	Q2126-08	LOQ-WATER-02-QT2	SAM	05/27/25 10:00	ADD 0.625 ML WP112784	jignesh	OK

**Instrument ID:** SPECTROPHOTOMETER-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135932**

Review By	Iwona	Review On	5/29/2025 10:39:49 AM
Supervise By	jignesh	Supervise On	5/29/2025 10:50:03 AM
SubDirectory	LB135932	Test	COD
<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	WP113238,WP113237,WP113235,WP113234,WP113233,WP113242,WP113239,WP113240,WP113241,WP113236,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	05/28/25 13:10			OK
2	CAL2	CAL2	CAL	05/28/25 13:10			OK
3	CAL3	CAL3	CAL	05/28/25 13:11			OK
4	CAL4	CAL4	CAL	05/28/25 13:11			OK
5	CAL5	CAL5	CAL	05/28/25 13:12			OK
6	CAL6	CAL6	CAL	05/28/25 13:12			OK
7	ICV	ICV	ICV	05/28/25 13:13			OK
8	ICB	ICB	ICB	05/28/25 13:13			OK
9	CCV1	CCV1	CCV	05/28/25 13:14			OK
10	CCB1	CCB1	CCB	05/28/25 13:14			OK
11	RL Check	RL Check	SAM	05/28/25 13:15			OK
12	LB135932BL	LB135932BL	MB	05/28/25 13:15			OK
13	LB135932BS	LB135932BS	LCS	05/28/25 13:16			OK
14	Q2115-01	OUTFALL-1	SAM	05/28/25 13:16			OK
15	Q2116-01	OUTFALL-2	SAM	05/28/25 13:17			OK
16	Q2116-01DUP	OUTFALL-2DUP	DUP	05/28/25 13:17			OK
17	Q2116-01MS	OUTFALL-2MS	MS	05/28/25 13:18			OK
18	Q2116-01MSD	OUTFALL-2MSD	MSD	05/28/25 13:18			OK

**Instrument ID:** SPECTROPHOTOMETER-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135932**

Review By	Iwona	Review On	5/29/2025 10:39:49 AM
Supervise By	jignesh	Supervise On	5/29/2025 10:50:03 AM
SubDirectory	LB135932	Test	COD
<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	WP113238,WP113237,WP113235,WP113234,WP113233,WP113242,WP113239,WP113240,WP113241,WP113236,V		

19	Q2126-07	LOD-MDL-WATER-01	SAM	05/28/25 13:19			OK
20	Q2126-08	LOQ-WATER-02-QT2	SAM	05/28/25 13:19			OK
21	CCV2	CCV2	CCV	05/28/25 13:20			OK
22	CCB2	CCB2	CCB	05/28/25 13:20			OK

## Prep Standard - Chemical Standard Summary

**Order ID :** Q2116

**Test :** COD,Oil and Grease

**Prepbatch ID :**

**Sequence ID/Qc Batch ID:** LB135911, LB135932,

**Standard ID :**

EP2614, WP112782, WP112783, WP112784, WP113231, WP113232, WP113233, WP113234, WP113235, WP113236, WP113237, WP113238, WP113239, WP113240, WP113241, WP113242, WP113243,

**Chemical ID :**

E3551, E3917, M6069, M6151, W2784, W2817, W2871, W3009, W3082, W3112, W3128, W3169, W3204,

## Extractions 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>
3923	Baked Sodium Sulfate	<a href="#">EP2614</a>	05/19/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Riteshkumar Patel  05/19/2025

**FROM** 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>
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_SCALE_8 (WCS-7)	None	Iwona Zarych 04/22/2025
<u>FROM</u>	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>
3374	1664A QCS spiking solution-SS	<a href="#">WP112784</a>	04/22/2025	10/03/2025	Jignesh Parikh	WETCHEM_SCALE_8 (WCS-7)	None	Iwona Zarych 04/22/2025
<u>FROM</u>	1000.00000ml of E3917 + 4.00000gram of W3009 + 4.00000gram of W3082 = Final Quantity: 1000.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2456	COD Stock std, 1000ppm	<a href="#">WP113231</a>	05/28/2025	06/04/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 05/28/2025
<u>FROM</u>	0.08500gram of W2784 + 100.00000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2457	COD Stock std-SS, 1000ppm	<a href="#">WP113232</a>	05/28/2025	06/04/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 05/28/2025
<u>FROM</u>	0.08500gram of W3169 + 100.00000ml of W3112 = 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>
139	COD calibration std. 0 ppm	<a href="#">WP113233</a>	05/28/2025	06/04/2025	Iwona Zarych	None	None	Jignesh Parikh
								05/28/2025

**FROM** 10.00000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
138	COD calibration std. 10 ppm	<a href="#">WP113234</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	05/28/2025

**FROM** 9.90000ml of W3112 + 0.10000ml of WP113231 = Final Quantity: 10.000 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>
137	COD calibration std. 50 ppm	<a href="#">WP113235</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025

**FROM** 9.50000ml of W3112 + 0.50000ml of WP113231 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4161	COD calibration std. 75 ppm	<a href="#">WP113236</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025

**FROM** 9.25000ml of W3112 + 0.75000ml of WP113231 = Final Quantity: 10.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
136	COD calibration std. 100 ppm	<a href="#">WP113237</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 05/28/2025
<u>FROM</u>	9.00000ml of W3112 + 1.00000ml of WP113231 = Final Quantity: 10.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
135	COD calibration std. 150 ppm	<a href="#">WP113238</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 05/28/2025
<u>FROM</u>	8.50000ml of W3112 + 1.50000ml of WP113231 = Final Quantity: 10.000 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>
2458	COD CCV std, 50ppm	<a href="#">WP113239</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025

**FROM** 9.50000ml of W3112 + 0.50000ml of WP113231 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2459	COD ICV-LCS std, 50ppm	<a href="#">WP113240</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025

**FROM** 9.50000ml of W3112 + 0.50000ml of WP113232 = Final Quantity: 10.000 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>
3580	COD LOD std, 5ppm	<a href="#">WP113241</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025
<b>FROM</b> 49.75000ml of W3112 + 0.25000ml of WP113231 = 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>
2069	COD LOQ std, 10.0PPM	<a href="#">WP113242</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025
<b>FROM</b> 49.50000ml of W3112 + 0.50000ml of WP113232 = Final Quantity: 50.000 ml								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4162	RL CHECK	<a href="#">WP113243</a>	05/28/2025	06/04/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  05/28/2025
<p><b>FROM</b>    9.90000ml of W3112 + 0.10000ml of WP113231 = Final Quantity: 10.000 ml</p>								

## 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 #
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.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	201089	06/30/2025	12/23/2020 / apatel	12/16/2020 / apatel	W2784

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

## CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A12244 / Stearic acid, 98%, 100 g	U23E020	02/26/2029	02/26/2024 / lwona	02/26/2024 / lwona	W3082

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	13821	10/31/2027	05/20/2025 / lwona	07/25/2024 / lwona	W3128

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



**CHEMICAL RECEIPT LOG BOOK**

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

**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.*

W3009  
rec. 2/27/2023 12

Product Name:

Hexadecane - ReagentPlus®, 99%

## Certificate of Analysis

Product Number:

H6703

Batch Number:

SHBP8192

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

Brand:

SIAL

CAS Number:

544-76-3

MDL Number:

MFCD00008998

Formula:

C16H34


Formula Weight:

226.44 g/mol

Quality Release Date:

04 AUG 2022

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

  
Larry Coers, Director  
Quality Control  
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](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

**ThermoFisher**  
SCIENTIFIC

## Certificate of Analysis

1 Reagent Lane

Fair Lawn, NJ 07410

201.796.7100 tel

201.796.1329 fax

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

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

Catalog Number	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE, ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	WHITE CRYSTALS
ASSAY POTASSIUM HYDROGEN PHTHALATE	%	Inclusive Between 99.95 - 100.05	100.03
CHLORINE COMPOUNDS	%	<= 0.003	<0.003
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
PH OF 0.05M SOLUTION		Inclusive Between 4.00 - 4.02	4.00
SODIUM (Na)	%	<= 0.005	<0.005
SULFUR COMPOUNDS	%	<= 0.002	<0.002%
TRACEABLE TO NIST	SOD CARBONATE	= LOT 351a	351a
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	84L



Julian Burton - Quality Control Manager – Fair Lawn

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

\*Based on suggested storage condition.



**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



## 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

W3082 Received on 2/26/2026 by IZ

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

Appearance White flakes  
Assay 98.7 %

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

Order our products online [www.alfa.com](http://www.alfa.com)

**ThermoFisher**  
S C I E N T I F I C

W3127 rec. 7/25/24 12  
W3128 exp. 10/31/27  
W3129

**ENVIRONMENTAL EXPRESS**  
Charleston, SC USA  
[www.envexp.com](http://www.envexp.com)  
(800) 343-5319

October 27, 2022

**CERTIFICATE OF ANALYSIS**

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20<sup>th</sup>, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

<u>Cat. No.</u>	<u>Lot No.</u>	<u>Product Description</u>
B1010	13821	COD Reagent Vials, 0 - 150 ppm



Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

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

Internal ID #: 322

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

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





### 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> Q2116	<b>ATGG01</b>	<b>Order Date :</b> 5/22/2025 2:34:02 PM	<b>Project Mgr :</b>
<b>Client Name :</b> ATG GREENVILLE LAB	<b>AEC</b>	<b>Project Name :</b> AEC-2025-0013- 14 Fisher	<b>Report Type :</b> Level 1
<b>Client Contact :</b> Daniel Maalouf	<b>AEC</b>	<b>Receive DateTime :</b> 5/22/2025 2:10:00 PM	<b>EDD Type :</b> Excel NY
<b>Invoice Name :</b> ATG GREENVILLE LAB	<b>AEC</b>	<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Daniel Maalouf			<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2116-01	OUTFALL-2	Water	05/21/2025	13:10	VOC-BTEX		8260-Low		10 Bus. Days

Relinquished By :

Date / Time :

*af*  
5/22/25 14:45

Received By :

Date / Time :

*Sam*  
05/22/25 14:45 *af #4*

Storage Area : VOA Refridgerator Room