

DATA PACKAGE GENERAL CHEMISTRY

PROJECT NAME : R36720

TETRA TECH, EMI 240 Continental Drive, Suite 200

Newark, DE - 19713

Phone No: 302-738-7551

ORDER ID: P4504

ATTENTION : Ava Heiss



Laboratory Certification ID # 20012





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Client Sample Number

Cover Page

Order ID : P4504

Project ID : R36720

> Client : Tetra Tech, EMI

Lab Sample Number

P4504-01	C0JW6
P4504-02	C0JW7
P4504-03	C0JW8
P4504-04	C0JW9
P4504-05	C0JX0
P4504-06	C0JX1
P4504-06	C0JX1
P4504-07	C0JX2

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 :

N. N. Pangya

NYDOH CERTIFICATION NO - 11376



NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

Tetra Tech, EMI Project Name: R36720 Project # N/A Chemtech Project # P4504 Test Name: Oil and Grease

A. Number of Samples and Date of Receipt:

7 Water samples were received on 10/23/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Oil and Grease. This data package contains results for Oil and Grease.

C. Analytical Techniques:

The analysis of Oil and Grease was based on method 1664A.

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 analysis met criteria for all samples. 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 P4504, therefore Lab reported MS-MSD from P4490.

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

N. N. Panlya

Signature_





DATA REPORTING QUALIFIERS- INORGANIC

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

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).				
U	Indicates the analyte was analyzed for, but not detected.				
ND	Indicates the analyte was analyzed for, but not detected				
Ε	Indicates the reported value is estimated because of the presence of interference				
Μ	Indicates Duplicate injection precision not met.				
Ν	Indicates the spiked sample recovery is not within control limits.				
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).				
*	Indicates that the duplicate analysis is not within control limits.				
+	Indicates the correlation coefficient for the MSA is less than 0.995.				
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.				
M OR	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"T"for Titrimetric"NR"for analyte not required to be analyzedIndicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.				
Q	Indicates the LCS did not meet the control limits requirements				
Н	Sample Analysis Out Of Hold Time				

ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEM	CHEMTECH PROJECT NUMBER: P4504 MATRIX: Water				
METHO	DD: 1664A				
1.	Blank Contamination - If yes, list compounds and concentration	ıs in each blank:	NA	NO ✔	YES
2.	Matrix Spike Duplicate Recoveries Met Criteria				\checkmark
	If not met, list those compounds and their recoveries which fall range.	outside the acceptable			
	The Blank Spike met requirements for all samples.				
3.	Sample Duplicate Analysis Met QC Criteria				\checkmark
	If not met, list those compounds and their recoveries which fall range.	outside the acceptable			
4.	Digestion Holding Time Met				✓

If not met, list number of days exceeded for each sample:

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 P4504, therefore Lab reported MS-MSD from P4490.

5. M. Jodhemi

QA REVIEW

REVIEWED

By Sohil Jodhani, QA/QC Director at 9:22 am, Nov 05, 2024



APPENDIX A

OA REVIEW GENERAL DOCUMENTATION

Project #: P4504

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: SOHI

SOHIL JODHANI

Completed



LAB CHRONICLE

OrderID: Client: Contact:	P4504 Tetra Tech, EMI Ava Heiss			OrderDate: Project: Location:	10/23/2024 11: R36720 K61	03:00 AM		
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4504-01	C0JW6	WATER			10/21/24 15:30			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-02	C0JW7	WATER			10/21/24 13:30			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-03	COJW8	WATER			10/21/24 11:35			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-04	COJW9	WATER			10/21/24 14:50			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-05	СОЈХО	WATER			10/21/24 15:15			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-06	C0JX1	WATER			10/21/24 15:05			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	
P4504-07	C0JX2	WATER			10/21/24 15:10			10/23/24
			Oil and Grease	1664A			10/28/24 10:25	







Client:	Tetra Tech, EMI		Date Collected:	10/21/24 15:30	
Project:	R36720		Date Received:	10/23/24	
Client Sample ID:	C0JW6		SDG No.:	P4504	
Lab Sample ID:	P4504-01		Matrix:	WATER	
			% Solid:	0	
Parameter	Conc. Qua. DF MDL	LOQ / CRQL Units	Prep Date	Date Ana. Ana Met.	
Oil and Grease	0.40 U 1 0.40	5.00 mg/L		10/28/24 10:25 1664A	

- 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



Client:	Tetra Tech, EMI		Date Collected:	10/21/24 13:30	
Project:	R36720		Date Received:	10/23/24	
Client Sample ID:	C0JW7		SDG No.:	P4504	
Lab Sample ID:	P4504-02		Matrix:	WATER	
			% Solid:	0	
Parameter	Conc. Qua. DF MDL	LOQ / CRQL Units	Prep Date	Date Ana. Ana Met.	
Oil and Grease	0.40 U 1 0.40	5.00 mg/L	,	10/28/24 10:25 1664A	

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Client:	Tetra Tech, EMI		Date Collected:	10/21/24 11:35	
Project:	R36720		Date Received:	10/23/24	
Client Sample ID:	C0JW8		SDG No.:	P4504	
Lab Sample ID:	P4504-03		Matrix:	WATER	
			% Solid:	0	
Parameter	Conc. Qua. DF MDL	LOQ / CRQL Units	Prep Date	Date Ana. Ana Met.	
Oil and Grease	0.40 U 1 0.40	5.00 mg/L		10/28/24 10:25 1664A	

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- LOD = Limit of Detection
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- J = Estimated Value
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- N =Spiked sample recovery not within control limits



Client:	Tetra Tech, EMI		Date Collected:	10/21/24 14:50
Project:	R36720		Date Received:	10/23/24
Client Sample ID:	C0JW9		SDG No.:	P4504
Lab Sample ID:	P4504-04		Matrix:	WATER
			% Solid:	0
Parameter	Conc. Qua. DF MDL	LOQ / CRQL	Units Prep Date	Date Ana. Ana Met.
Oil and Grease	0.40 U 1 0.40	5.00	mg/L	10/28/24 10:25 1664A

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- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
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- H = Sample Analysis Out Of Hold Time

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



Client:	Tetra Tech, EMI		Date Collected:	10/21/24 15:15
Project:	R36720		Date Received:	10/23/24
Client Sample ID:	C0JX0		SDG No.:	P4504
Lab Sample ID:	P4504-05		Matrix:	WATER
			% Solid:	0
Parameter	Conc. Qua. DF MDL	LOQ / CRQL	Units Prep Date	Date Ana. Ana Met.
Oil and Grease	0.40 U 1 0.40	5.00	mg/L	10/28/24 10:25 1664A

- 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



Client:	Tetra Tech, EMI		Date Collected:	10/21/24 15:05	
Project:	R36720		Date Received:	10/23/24	
Client Sample ID:	C0JX1		SDG No.:	P4504	
Lab Sample ID:	P4504-06		Matrix:	WATER	
			% Solid:	0	J
Parameter	Conc. Qua. DF MDL	LOQ / CRQL Un	its Prep Date	Date Ana. Ana Met.	
Oil and Grease	0.40 U 1 0.40	5.00 m	g/L	10/28/24 10:25 1664A	

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- 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



Client:	Tetra Tech, EMI		Date Collected:	10/21/24 15:10
Project:	R36720		Date Received:	10/23/24
Client Sample ID:	C0JX2		SDG No.:	P4504
Lab Sample ID:	P4504-07		Matrix:	WATER
			% Solid:	0
Parameter	Conc. Qua. DF MDL	LOQ / CRQL	Units Prep Date	Date Ana. Ana Met.
Oil and Grease	0.40 U 1 0.40	5.00	mg/L	10/28/24 10:25 1664A

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- LOQ = Limit of Quantitation
- MDL = Method Detection Limit
- LOD = Limit of Detection
- D = Dilution
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- H = Sample Analysis Out Of Hold Time

- J = Estimated Value
- B = Analyte Found in Associated Method Blank
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- OR = Over Range
- N =Spiked sample recovery not within control limits



<u>QC RESULT</u> <u>SUMMARY</u>



Preparation Blank Summary

Client:	Tetra Tech, EMI					SDG No.:	P4504	
Project:	R36720							
Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date



Matrix Spike Summary

Oil and Grease	mg/L	78-114	80.8		61.1		20.0	1	98		10/28/2024
Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Client ID:	EFFLUENTMS				Percent	Solids for S	Spike Sam	ple:	0		
Project:	R36720				Sample		P4490-0				
Client:	Tetra Tech, EMI				SDG No	.:	P4504				



Matrix Spike Summary

Oil and Grease	mg/L	78-114	81.0		61.1		20.0	1	100		10/28/202
Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Client ID:	EFFLUENTMSD				Percent	Solids for S	Spike Sam	ple:	0		
Project:	R36720				Sample		P4490-0				
Client:	Tetra Tech, EMI				SDG No	.:	P4504				



Duplicate Sample Summary

Dil and Grease	mg/L	+/-18	80.8	81.0		1	0.25		10/28/2024
analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Client ID:	EFFLUENTMSD			Percent Sol	ids for Spil	ke Sample:	0		
Project:	R36720			Sample ID:	Р	4490-01			
Client:	Tetra Tech, EMI			SDG No.:	P4:	504			



Laboratory Control Sample Summary

Client: Tetra Tech, EMI					SDG	No.:	P4504		
Project:	R36720				Run	No.:	LB133159		
		T T •4	True Value	Result	Conc. Qualifier	% Recoverv	Dilution Factor	Acceptance Limit %R	Analysis Date
nalyte		Units	value	Kesun	Quanner	Recovery	Factor	Emmt /or	Date
·	LB133159BS	Units	value	Kesuit	Quanner	Recovery	Pactor		Date



RAW DATA



Extraction and Analytical Summary Report

Analysis Method:	1664A
Test:	Oil and Grease
Run Number:	LB133159
Analysis Date:	10/28/2024
BalanceID:	WC SC-6
OvenID:	EXT OVEN-3

ANALYST:	jignesh
REVIEWED BY:	Iwona
Extraction Date:	10/28/2024
Extration IN Time:	08:11
Extration OUT Time:	09:14
Thermometer ID:	EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	рН	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (q)	Final Empty Dish Weight(g)	Silica Gel Weight(g)	Weight After Drying(g)	Final Weight After Drying(g)	Change Weight (g)	Result in ppm
1	LB133159BL	LB133159BL	WATER	1.3	1000	100	3.2552	3.2552	0	3.2553	3.2553	0.0001	0.1
2	LB133159BS	LB133159BS	WATER	1.3	1000	100	3.1478	3.1478	0	3.1645	3.1645	0.0167	16.7
3	P4490-01	EFFLUENT	WATER	1.6	1000	100	3.0885	3.0885	0	3.1496	3.1496	0.0611	61.1
4	P4490-02	P4490-01MS	WATER	1.6	1000	100	2.9036	2.9036	0	2.9844	2.9844	0.0808	80.8
5	P4490-03	P4490-01MSD	WATER	1.6	1000	100	3.1474	3.1474	0	3.2284	3.2284	0.0810	81
6	P4503-01	C0JX3	WATER	1.3	1000	100	2.8744	2.8744	0	2.8746	2.8746	0.0002	0.2
7	P4503-02	C0JX4	WATER	1.3	1000	100	2.3166	2.3166	0	2.3169	2.3169	0.0003	0.3
8	P4503-03	C0JX5	WATER	1.3	1000	100	2.8506	2.8506	0	2.8508	2.8508	0.0002	0.2
9	P4503-04	C0JX6	WATER	1.3	1000	100	3.1587	3.1587	0	3.1590	3.1590	0.0003	0.3
10	P4503-05	C0JX7	WATER	1.3	1000	100	2.8052	2.8052	0	2.8054	2.8054	0.0002	0.2
11	P4503-06	C0JX8	WATER	1.3	1000	100	2.4163	2.4163	0	2.4165	2.4165	0.0002	0.2
12	P4503-07	C0JX9	WATER	1.3	1000	100	2.7844	2.7844	0	2.7847	2.7847	0.0003	0.3
13	P4503-08	СОЈҮО	WATER	1.3	1000	100	2.3011	2.3011	0	2.3014	2.3014	0.0003	0.3
14	P4504-01	C0JW6	WATER	1.3	1000	100	3.0778	3.0778	0	3.0780	3.0780	0.0002	0.2
15	P4504-02	C0JW7	WATER	1.3	1000	100	3.1559	3.1559	0	3.1561	3.1561	0.0002	0.2
16	P4504-03	C0JW8	WATER	1.3	1000	100	2.8607	2.8607	0	2.8609	2.8609	0.0002	0.2
17	P4504-04	COJW9	WATER	1.3	1000	100	2.9633	2.9633	0	2.9635	2.9635	0.0002	0.2
18	P4504-05	COJXO	WATER	1.3	1000	100	3.1784	3.1784	0	3.1787	3.1787	0.0003	0.3
19	P4504-06	COJX1	WATER	1.3	1000	100	2.9888	2.9888	0	2.9891	2.9891	0.0003	0.3
20	P4504-07	C0JX2	WATER	1.3	1000	100	3.1307	3.1307	0	3.1308	3.1308	0.0001	0.1



QC Batch# LB133159 Test: Oil and Grease

Analysis Date: 10/28/2024

Chemicals Used:

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

Standards Used:

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

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance:	0.0018	(0.0018-0.0022)	In (OVEN TEMP1 :	70 °C	Dessicator	Time	In1 :	11:36
1.0000 gram Balance:	1.0003	(0.9950-1.0050)	In	Time1:	10:25				
Bal Check Time:	08:30	_	Out	OVEN TEMP1:	70 °C	Dessicator	Time	Out1:	12:15
			Out	Time1:	11 : 35				

After Analysis

0.0020 gram Balance:	0.002	(0.0018-0.0022)	In OVEN TEMP2 :	71 °C	Dessicator Time	In2 :	13:16
1.0000 gram Balance:				12:40			
Bal Check Time:	14:11	_	Out OVEN TEMP2:	71 °C	Dessicator Time	Out2:	14:10
		_	Out Time2:	13:15			

10

P4504-					WORKLIST(Hard	WORKLIST(Hardcopy Internal Chain)		PSIEERCM	60	
SENC	WorkList Name :	ne: oil & grease p4490	se p4490	WorkList ID :	ID: 184845	Department : Wet-C	Wet-Chemistry	Da		10-28-2024 07:53:30
HEM	Sample	Custome	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	l i i i i i i i i i i i i i i i i i i i	Method
	P4490-01		NT	Water	Oil and Grease					
	P4490-02	P4490-01MS	IMS	Water	Oil and Groot	CUIC 12504 10 PH < 2	HOLL01	K11	10/22/2024	1664A
	P4490-03	P4490-01MSD	IMSD	Water	Oil and Groce	V	HOLL01	K11	10/22/2024	1664A
	P4503-01	C0JX3		Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	K11	10/22/2024	1664A
I	P4503-02	COJX4		VICTO	Oll and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
1	P4503-03	COJX5		Waler	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4503-04	COJX6		valer	UII and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4503-05	COJX7		vvaler	Ull and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4503-06	COLIX8		vvaler	Ull and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4503-07	CUIXO		water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
1	P4503-08			Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4504-01			Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61		1664A
	P4504-02	CO.IM7		Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	d - 1	1664A
1	P4504-03	CO.IWB		water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
1	P4504-04	COLIMA		water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4504-05	CUIXU		Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4504-06			Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
	P4504-07	COLX2		Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	1	1664A
		44000		Water	Oil and Grease	Conc H2SO4 to pH < 2	TETR16	K61	10/21/2024	1664A
26 o										
f 46) (12/26/26	00,80 26/28/01							Re On PM Ins LB
5 C		111011		I			Date/Time	1012849	(view(:10/2 1 :LB1 .LB1

Reviewed By:Iwona On:10/28/2024 4:13:12 PM Inst Id :WC SC-3 LB :LB133159

JOCM

TJOIN Or

Raw Sample Relinquished by:

<mark>10</mark> 11 12

13

Page 1 of 1

3

Raw Sample Relinquished by:

Raw Sample Received by:

Date/Time \0()X\$



Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB133159

Review By	jign	esh	Review On	10/28/2024 9:02:04 AM
Supervise By	Iwo	na	Supervise On	10/28/2024 10:01:32 AM
SubDirectory	LB	133159	Test	Oil and Grease
STD. NAME		STD REF.#		
ICAL Standard		N/A		
ICV Standard		N/A		
CCV Standard		N/A		
ICSA Standard		N/A		
CRI Standard		N/A		
LCS Standard		N/A		
Chk Standard		W3110,M6069,EP2554	WP108566,NA,NA,WP108567,NA,WP	108568

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



WC SC-3 **Instrument ID:**

Daily Analysis Runlog For Sequence/QCBatch ID # LB133159

Review	v Ву	jigne	sh	Review On		10/28/2024 9:02:	04 AM		
Superv	∕ise By	Iwona	а	Supervise On		10/28/2024 10:01	1:32 AM		
SubDir	rectory	LB13	3159	Test		Oil and Grease			
STD. N	IAME	S	STD REF.#						
ICAL Star	ndard	1	I/A						
ICV Stan	idard	1	I/A						
CCV Stan	ndard	1	I/A						
ICSA Star	ndard	1	I/A						
CRI Stand	dard	1	I/A						
LCS Stan	dard	1	N/A						
Chk Stand	dard	١	V3110,M6069,EP255	4,WP108566,NA,NA,WP10	08567,NA,V	WP108568			
19	P4504-06		C0JX1	SAM	1	10/28/24 10:25		jignesh	ОК
20	P4504-07		C0JX2	SAM	1	10/28/24 10:25		jignesh	ок



Prep Standard - Chemical Standard Summary

Order ID :	P4504
Test :	Oil and Grease
Prepbatch ID :	
Sequence ID/Qc	Batch ID: LB133159,
Standard ID : EP2554,WP1085	566,WP108567,WP108568,
Chemical ID :	
	5943,M6069,W2606,W2817,W2871,W3009,W3082,W3110,



Extractions STANDARD PREPARATION LOG

Recipe ID 3923	NAME Baked Sodium Sulfate	<u>NO.</u> EP2554	Prep Date 10/26/2024	Prepared By RUPESHKUMA R SHAH	ALE_2	PipettelD None	Supervised By Rajesh Parikh 10/26/2024
FROM	4000.00000gram of E3551 = Final C	uantity: 400	0.000 gram		(EX-SC-2)		

Recipe				Expiration	Prepared			Supervised By
<u>ID</u>	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	PipettelD	Iwona Zarych
229	1:1 HCL	WP108566	06/27/2024	10/24/2024	Jignesh Parikh	None	None	,
								06/27/2024
FROM	500.00000ml of M5943 + 500.00000	ml of W2606	6 = Final Qua	ntity: 1.000 L				
				-				



Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe</u> <u>ID</u> 2470	NAME 1664A SPIKING SOLN	<u>NO.</u> WP108567	Prep Date 06/27/2024	Expiration Date 12/25/2024	Prepared By Jignesh Parikh	<u>ScaleID</u> None	PipetteID None	Supervised By Iwona Zarych 06/27/2024
<u>FROM</u>	1000.00000ml of E3726 + 4.00000gr	am of W281	7 + 4.00000g	ram of W2871	= Final Quantit	y: 1000.000 ml		
<u>Recipe</u> <u>ID</u>	NAME	<u>NO.</u>	Prep Date	Expiration Date	<u>Prepared</u> <u>By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u> Iwona Zarych

Recipe				Expiration	Prepared			Supervised By
<u>ID</u>	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	<u>PipetteID</u>	Iwona Zarych
3374	1664A QCS spiking solution-SS	WP108568	06/27/2024	12/25/2024	Jignesh Parikh	WETCHEM_S	None	-
						CALE_4 (WC		06/27/2024
FROM	1000.00000ml of E3726 + 4.00000gr	am of W300	9 + 4.00000g	ram of W3082	= Final Quantit	SC-4) y: 1000.000 ml		



CHEMICAL RECEIPT LOG BOOK

ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	01/03/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	1234	12/25/2024	02/26/2024 / Rajesh	02/23/2024 / Rajesh	E3726
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	12/24/2024	06/24/2024 / Al-Terek	06/21/2024 / Al-Terek	M5943
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
A12244 / Stearic acid,	U20E006	04/02/2026	04/02/2021 /	04/02/2021 /	W2817
	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1 ItemCode / ItemName BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) ItemCode / ItemName BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L) ItemCode / ItemName 140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK ItemCode / ItemName DIW / DI Water	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1313201ItemCode / ItemNameLot #BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)1234ItemCode / ItemNameLot #BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)22G2862015ItemCode / ItemNameLot #140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK80A0441ItemCode / ItemNameLot #ItemCode / ItemNameLot #DIW / DI WaterDaily Lab-CertifiedItemCode / ItemNameLot #	ItemCode / ItemNameLot #DatePC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 131320101/03/2025ItemCode / ItemNameLot #Expiration DateBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)123412/25/2024ItemCode / ItemNameLot #Expiration DateBA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)22G286201512/24/2024ItemCode / ItemNameLot #Expiration DateItemCode / ItemNameLot #Expiration DateDIW / DI WaterDaily Lab-Certified10/24/2024ItemCode / ItemNameLot #Expiration DateItemCode / ItemNameLot #Expiration Date	ItemCode / ItemNameLot #DateOpened ByPC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 131320101/03/202501/03/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)123412/25/202402/26/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByBA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)22G286201512/24/202406/24/2024 / Al-TerekItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByItemCode / ItemNameLot #Expiration Date09/03/2024 / gineshItemCode / ItemNameLot #Expiration Date09/03/2024 / gineshItemCode / ItemNameLot #Expiration Date09/03/2024 / gineshItemCode / ItemNameLot #Expiration Date040 Opened f Opened ByItemCode / ItemNameLot #Expiration Date040 Opened f Opened ByItemCode / ItemNameLot #Expiration Date040 Opened f Opened ByIW / DI WaterDaily Lab-Certified10/24/202410/24/2019 / apatelItemCode / ItemNameLot #Expiration DateDate Opened / Opened By	ItemCode / ItemNameLot #DateOpened ByReceived ByPC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 131320101/03/202501/03/2024 / Rajesh07/20/2023 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Received Date / Received Date / Received ByBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)12/3412/25/2024Date Opened / Opened ByReceived Date / Received ByBA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)Lot #Expiration DateDate Opened / Opened ByReceived Date / Received ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Received Date / Received ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Al-TerekItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Date Opened / Opened ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Date Opened / Opened ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Opened ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received Date / Opened ByItemCode / ItemNameLot #Expiration Date

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P4504-GENCHEM



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 / Iwona	02/27/2023 / Iwona	W3009
Supplier	ItemCode / ItemName	Lot #	Expiration	Date Opened /	Received Date /	Chemtech
••	nemoode / nemitanie	L01 #	Date	Opened By	Received By	Lot #
PCI Scientific Supply, Inc.	A12244 / Stearic acid, 98%, 100 g	U23E020	Date 02/26/2029	Opened By 02/26/2024 / Iwona	Received By 02/26/2024 / Iwona	Lot # W3082
PCI Scientific	A12244 / Stearic acid,			02/26/2024 /	02/26/2024 /	





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 (CH3(CH2)14CH3) (by GC)	>= 99.0 %	99.3
Infrared Spectrum	Passes Test	РТ

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

ames Techie

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

Thermo Fisher

W 2817 Nec. 04/02/2021

Product Specification

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

CAS Number:	57-11-4
Molecular Formula:	C18H36O2
Molecular Weight:	284.48
InChI Key:	QIQXTHQIDYTFRH-UHFFFAOYSA-N
SMILES:	0=(0)2222222222222222
Synonym:	stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016
	stearic acid, ion(1-) (8CI) glycon TP glycon DP acidum stearinicul hydrofol acid 150

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

Date Of Print: 11/30/2023

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

Sigma-Aldrich

W 3009 Lec. 2/27/2023

Product Name: Hexadecane - ReagentPlus® , 99%

Certificate of Analysis

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Product Number: H6703 **Batch Number:** SHBP8192 Brand: SIAL CAS Number: 544-76-3 MDL Number: MFCD00008998 Formula: C16H34 Formula Weight: 226.44 g/mol Quality Release Date: 04 AUG 2022

CH3(CH2)14CH3

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

	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 АРНА	< 5 APHA	

Larry Coers, Director Quality Control Sheboygan Falls, WI US

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





PRODUCTOS QUIMICOS MONTERREY, S.A. DE CV. MIRADOR 201, COL. MIRADOR MONTERREY, N.L. MEXICO CP 64070 TEL +52 81 13 52 57 57 WWW.pgm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT : QUALITY :	SODIUM SULFATE CRYSTALS AN ACS (CODE RMB3375)		IYDROUS FORMULA :	Na ₂ SO ₄	
SPECIFICATION NUMBER : 6399		RELEASE DATE:	Na2504 ABR/21/2023		
LOT NUMBER :	313201		the theorem of the star and star star star a	ADICE 112023	
	IST.	SPECIFICATION	S LOT \	/ALUES	
Assay (Na₂SO₄)		Min. 99.0%	99.7 %	6.	
pH of a 5% solution a	t 25°C	5.2 - 9.2	6.1	97 1	
Insoluble matter		Max. 0.01%	0.005	0/	
Loss on ignition		Max. 0.5%	0.1 %	76	
Chloride (Cl)		Max. 0.001%	<0.00	1 0%	
Nitrogen compounds	(as N)	Max. 5 ppm	<5 pp		
Phosphate (PO₄)		Max. 0.001%	N X		
Heavy metals (as Pb)		Max. 5 ppm		<0.001 % <5 ppm	
Iron (Fe)		Max. 0.001%	<0.00		
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			
Appearance		Passes test	Passe	and the second	
Identification		Passes test	Passe	s test	
Solubility and foreing		Passes test	Passe	s test	
Retained on US Stand	lard No. 10 sieve	Max. 1%	0.1 %		
Retained on US Stand	lard No. 60 sieve	Min. 94%	97.3 %	3	
Through US Standard	No. 60 sieve	Max. 5%	2.5 %		
Through US Standard	No. 100 sieve	Max. 10%	0.1 %		
Min All Color and Comparison of the Comparison of the Color and Comparison of the Comparison of Comparison of C	AANTALOONAAN AAN MINISTRA (CO	COMMENTS	de estructure adaption activitation adapt		
	el cite		ns	Arrow Shart I	
			·····		
			1.		
cia	. Marco . Marco	PL ANERS ANY LAB.	QC: PhC Irma Belm	ares	

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

Recd. by R? on 7/2423 E 3551

RE-02-01, Ed.

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





M5943 M5944 M5945 M5946

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 HCI) (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 Cl2)	≤ 0.5 ppm	< 0.5 ppm	
Phosphate (PO4)	≤ 0.05 ppm	< 0.03 ppm	
Sulfate (SO4)	≤ 0.5 ppm	< 0.3 ppm	
Sulfite (SO3)	≤ 0.8 ppm	0.3 ppm	
Ammonium (NH4)	≤ 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	
		• •	

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>>> Continued on page 2 >>>

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





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

Test	Specification	Darah	
	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)	\leq 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 (TI)	≤ 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	

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





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11 12 13

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

Test	Specification	Result
		Nesure
	۰۲ ۲	
r Laboratory,Research,or Manufacturing Use oduct Information (not specifications): pearance (clear, fuming liquid)		
pearance (clear, fuming liquid)		

Appearance (clear, fuming liquid) Meets ACS Specifications Storage Condition: Store below 25 °C.

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

James Techie Jamie Ethier

Vice President Global Quality

5 F. . .

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.



DE Tel.: +49 24 21 969-0 info@mn-net.com

CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com

US Tel.: +133 388 68 22 68 sales-tr@mn-net.com US Tel.: +1 888 321 62 24 sales-us@mn-net.com

M6069

R: 8/19/24

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 %

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Certificate of Analysis Thermo Fisher SCIENTIFIC

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Certificate of Analysis 06/27/2024

J3110

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

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT - 0120633

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

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

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

Salyn

Harout Sahagian - Quality Control Manager - Fair Lawn

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



<u>SHIPPING</u> DOCUMENTS

USEPA CLP COC (LAB COPY)

DateShipped: 19/17/2024 / ປ/ ລະ ໄລ ຍາຍ CarrierName: FedEx AirbillNo: 779434427433

CHAIN OF CUSTODY RECORD

DAS #: R36720 Cooler #: Oil and Grease TW/SW

No: 3-102224-114418-0072 Lab: Chemtech Lab Lab Contact: Yazmeen Gomez Lab Phone: (908) 728-3147

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ET-SW-01- 20241021	C0JW6	Surface Water/ START	Grab	O/G(14)	2824 (H2SO4) (1)	SW-01	10/21/2024 15:30	
ET-SW-02- 20241021	C0JW7	Surface Water/ START	Grab	O/G(14)	2827 (H2SO4) (1)	SW-02	10/21/2024 13:30	
ET-SW-04- 20241021	C0JW8	Surface Water/ START	Grab	O/G(14)	2830 (H2SO4) (1)	SW-04	10/21/2024 11:35	
ET-TW-01- 20241021	C01Ma	Treatment Water/ START	Grab	O/G(14)	2836 (H2SO4) (1)	TW-01	10/21/2024 14:50	
ET-TW-02- 20241021	COJXO	Treatment Water/ START	Grab	O/G(14)	2839 (H2SO4) (1)	TW-02	10/21/2024 15:15	
ET-TW-03- 20241021	C0JX1	Treatment Water/ START	Grab	O/G(14)	2842 (H2SO4) (1)	TW-03	10/21/2024 15:05	
ET-TW-04- 20241021	C0JX2	Treatment Water/ START	Grab	O/G(14)	2845 (H2SO4) (1)	TW-04	10/21/2024 15:10	

	Shipment for Case Complete? N
Special Instructions: Oil and Grease TW/SW	Samples Transferred From Chain of Custody #
Analysis Key: O/G=Oil and Grease	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	funderar / START	16:03	CX	950	It-G # 1 2.4
	· · · · · · · · · · · · · · · · · · ·				Custody Seal Infort
					Temp Blank pees

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Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488