

## Cover Page

**Order ID :** Q1890

**Project ID :** 540 Degraw St, Brooklyn, NY - E9309

**Client :** ENTACT

**Lab Sample Number**

Q1890-01

**Client Sample Number**

TW-WTS-07

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: 5/3/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

## **CASE NARRATIVE**

### **ENTACT**

**Project Name: 540 Degraw St, Brooklyn, NY - E9309**

**Project # N/A**

**Chemtech Project # Q1890**

**Test Name: Flash Point,BOD5,TSS**

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

1 Water sample was received on 04/25/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested:

BOD5, Flash Point, Mercury, Metals Group4, PCB, SVOCMS Group4, TSS and

VOCMS Group4. This data package contains results for Flash Point,BOD5,TSS.

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

The analysis of Flash Point was based on method 1010B, The analysis of TSS was based on method SM2540 D 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 Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

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

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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.

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<br>“P” for ICP instrument<br>“PM” for ICP when Microwave Digestion is used<br>“CV” for Manual Cold Vapor AA<br>“AV” for automated Cold Vapor AA<br>“CA” for MIDI-Distillation Spectrophotometric<br>“AS” for Semi -Automated Spectrophotometric<br>“C” for Manual Spectrophotometric<br>“T” for Titrimetric<br>“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 #: Q1890

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: PRADIP PRAJAPATI

Date: 05/03/2025

## LAB CHRONICLE

|                 |                 |                   |                                     |
|-----------------|-----------------|-------------------|-------------------------------------|
| <b>OrderID:</b> | Q1890           | <b>OrderDate:</b> | 4/25/2025 11:37:00 AM               |
| <b>Client:</b>  | ENTACT          | <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 |
| <b>Contact:</b> | Jarod Stanfield | <b>Location:</b>  | L41,VOA Ref. #3 Water               |

| LabID    | ClientID  | Matrix | Test        | Method   | Sample Date       | Prep Date | Anal Date         | Received |
|----------|-----------|--------|-------------|----------|-------------------|-----------|-------------------|----------|
| Q1890-01 | TW-WTS-07 | WATER  |             |          | 04/24/25<br>15:00 |           |                   | 04/25/25 |
|          |           |        | BOD5        | SM5210 B |                   |           | 04/25/25<br>17:40 |          |
|          |           |        | Flash Point | 1010B    |                   |           | 04/30/25<br>10:00 |          |
|          |           |        | TSS         | SM2540 D |                   |           | 04/30/25<br>15:45 |          |



# SAMPLE DATA

## Report of Analysis

|                   |                                     |                 |                |
|-------------------|-------------------------------------|-----------------|----------------|
| Client:           | ENTACT                              | Date Collected: | 04/24/25 15:00 |
| Project:          | 540 Degraw St, Brooklyn, NY - E9309 | Date Received:  | 04/25/25       |
| Client Sample ID: | TW-WTS-07                           | SDG No.:        | Q1890          |
| Lab Sample ID:    | Q1890-01                            | Matrix:         | WATER          |
|                   |                                     | % Solid:        | 0              |

| Parameter   | Conc. | Qua. | DF | MDL  | LOQ / CRQL | Units | Prep Date | Date Ana.      | Ana Met.     |
|-------------|-------|------|----|------|------------|-------|-----------|----------------|--------------|
| BOD5        | 115   |      | 1  | 0.20 | 2.00       | mg/L  |           | 04/25/25 17:40 | SM 5210 B-16 |
| Flash Point | >212  |      | 1  | 0    | 0          | o F   |           | 04/30/25 10:00 | 1010B        |
| TSS         | 4.70  |      | 1  | 1.00 | 4.00       | mg/L  |           | 04/30/25 15:45 | SM 2540 D-15 |

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY





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

### Initial and Continuing Calibration Verification

**Client:** ENTACT

**SDG No.:** Q1890

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**RunNo.:** LB135602

| Analyte                   | Units      | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|---------------------------|------------|--------|------------|---------------|---------------------------|------------------|
| Sample ID:<br>Flash Point | ICV<br>° F | 80.6   | 81         | 100           | 78-84                     | 04/30/2025       |

## Preparation Blank Summary

**Client:** ENTACT

**SDG No.:** Q1890

**Project:** 540 Degraw St, Brooklyn, NY - E9309

| Analyte            | Units                     | Result   | Acceptance<br>Limits | Conc<br>Qual | MDL  | RDL | Analysis<br>Date |
|--------------------|---------------------------|----------|----------------------|--------------|------|-----|------------------|
| Sample ID:<br>BOD5 | <b>LB135598BL</b><br>mg/L | < 0.2000 | 0.2000               | U            | 0.20 | 2.0 | 04/25/2025       |
| Sample ID:<br>TSS  | <b>LB135617BL</b><br>mg/L | 1        | 2.0000               | J            | 1    | 4   | 04/30/2025       |

## Duplicate Sample Summary

|  |  |
|--|--|
| <b>Client:</b> ENTACT<br><b>Project:</b> 540 Degraw St, Brooklyn, NY - E9309<br><b>Client ID:</b> TW-WTS-07DUP | <b>SDG No.:</b> Q1890<br><b>Sample ID:</b> Q1890-01<br><b>Percent Solids for Spike Sample:</b> 0 |
|--|--|

| Analyte     | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|-------------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| BOD5        | mg/L  | +/-20               | 115              |                    | 112                 |                    | 1                  | 2.65       |      | 04/25/2025       |
| Flash Point | o F   | +/-2                | >212.0           |                    | >212.0              |                    | 1                  | 0          |      | 04/30/2025       |

## Duplicate Sample Summary

|                   |                                     |   |          |
|-------------------|-------------------------------------|---|----------|
| <b>Client:</b>    | ENTACT                              | <b>SDG No.:</b>                         | Q1890    |
| <b>Project:</b>   | 540 Degraw St, Brooklyn, NY - E9309 | <b>Sample ID:</b>                       | Q1924-02 |
| <b>Client ID:</b> | COMPDUP                             | <b>Percent Solids for Spike Sample:</b> | 0        |

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|---------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| TSS     | mg/L  | +/-5                | 86.3             |                    | 87.3                |                    | 1                  | 1.15       |      | 04/30/2025       |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** Q1890

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB135598

| Analyte   | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|-----------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID | LB135598BS |            |        |                 |            |                 |                     |               |
| BOD5      | mg/L       | 198        | 195    |                 | 99         | 1               | 84.6-115.4          | 04/25/2025    |

### Laboratory Control Sample Summary

**Client:** ENTACT

**SDG No.:** Q1890

**Project:** 540 Degraw St, Brooklyn, NY - E9309

**Run No.:** LB135617

| Analyte   | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|-----------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID | LB135617BS |            |        |                 |            |                 |                     |               |
| TSS       | mg/L       | 550        | 532    |                 | 97         | 1               | 90-110              | 04/30/2025    |



# RAW DATA

# BOD5 LOG

ANALYST: rubin  
Inst Id :DO METER  
LB :LB135598

Reviewed By:Iwona  
On:4/30/2025 3:55:03  
PM

SUPERVISOR: Iwona

QC BATCH ID: LB135598

Analysis Date: 04/25/2025

BOD Water: WP112855

MANGANOUS SULFATE SOLUTION: W3103

Starch: W3149

Alkaline Iodide Azide: W3109

Sulfuric acid, 1N: WP112832

Sodium Thiosulfate, 0.025N: W3105

POLYSEED: WP112857

NaOH, 1N: WP111323

GGA: WP112856

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                  | 9.8                | 9.8        | 9.8     |
| WINKLER 2    | WINKLER 2 | 2          | 300     | 9.9                  | 19.7               | 9.8        | 9.8     |

Meter Calibration1: 9.37

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

Barometric Pressure1: 765 mmHg

DO Meter BOD fluid reading for winkler comparison: 9.89

## After Incubation

Meter Calibration2: 7.89

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

Barometric Pressure2: 760 mmHg



QC BATCH ID: LB135598

INCUBATOR TEMP IN(C): 20.2

INCUBATOR TEMP OUT(C): 20.0

TIME IN: 17:40

TIME OUT: 13:00

DATE IN: 04/25/2025

DATE OUT: 04/30/2025

| 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     |
|--------------|------------|----------|------------|----------|---------|---------------|---------------|-------------|-----------|-------------------|-------------------|-------------|
| LB135598BL   | 1          | No       | 6.61       | N/A      | 20.90   | 300           | 9.89          | 9.87        | 0.02      | 0.02              | 0.02              |             |
| POLYSEED     | 1          |          |            |          |         | 10            | 9.68          | 6.19        | 3.49      | 0.7               | 0.68              |             |
| POLYSEED     | 2          |          |            |          |         | 15            | 9.66          | 4.20        | 5.46      | 0.73              |                   |             |
| POLYSEED     | 3          |          |            |          |         | 20            | 9.60          | 3.62        | 5.98      | 0.6               |                   |             |
| GGA          | 1          |          |            |          |         | 6             | 9.74          | 5.19        | 4.55      | 193.5             | 195.33            |             |
| GGA          | 2          |          |            |          |         | 6             | 9.68          | 5.11        | 4.57      | 194.5             |                   |             |
| GGA          | 3          |          |            |          |         | 6             | 9.65          | 5.01        | 4.64      | 198               |                   |             |
| Q1890-01     | 1          | No       | 11.61      | 7.47     | 20.60   | 5             | 9.85          | 5.79        | 4.06      | 202.8             | 115.4             | pH Adjusted |
| Q1890-01     | 2          |          |            |          |         | 20            | 9.77          | 2.71        | 7.06      | 95.7              |                   |             |
| Q1890-01     | 3          |          |            |          |         | 50            | 9.65          | 1.02        | 8.63      | 47.7              |                   |             |
| Q1890-01     | 4          |          |            |          |         | 150           | 8.85          | 0.22        | -         | 0                 |                   |             |
| Q1890-01DUP  | 1          | No       | 11.61      | 7.47     | 20.60   | 5             | 9.85          | 5.90        | 3.95      | 196.2             | 112.38            | pH Adjusted |
| Q1890-01DUP  | 2          |          |            |          |         | 20            | 9.75          | 2.85        | 6.9       | 93.3              |                   |             |
| Q1890-01DUP  | 3          |          |            |          |         | 50            | 9.67          | 1.05        | 8.62      | 47.64             |                   |             |
| Q1890-01DUP  | 4          |          |            |          |         | 150           | 8.84          | 0.21        | -         | 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.

8655509  
(6135509)

WORKLIST(Hardcopy Internal Chain)

WorkList Name : BOD5-4-25

WorkList ID : 189158

Department : Wet-Chemistry

Date : 04-25-2025 16:30:30

| Sample   | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|----------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|----------|
| Q1890-01 | TW-WTS-07       | Water  | BOD5 | Cool 4 deg C | ENTA05   | L41                         | 04/24/2025   | SM5210 B |

Date/Time 04/25/2025 16:45  
Raw Sample Received by: RM wsc  
Raw Sample Relinquished by: JH wsc

Date/Time 04/25/2025 17:20  
Raw Sample Received by: JH wsc  
Raw Sample Relinquished by: RM wsc

# Analytical Summary Report

Analysis Method: 1010B

Reviewed By: Iwona

Parameter: Flash Point

Supervisor Review By: jignesh

Run Number: LB135602

Ambient Barometric Pressure (mmHg): 760.00

Thermometer ID: Flashpoint

Barometric Scale ID: 0511064

| Reagent/Standard | Lot/Log # |
|------------------|-----------|
| p-xylene (ICV)   | W3193     |

| Seq | LabID       | True Value °F | DL | Initial Sample °C | Celsius °C | Result °F | Final Result °F | Anal Date  | Anal Time |
|-----|-------------|---------------|----|-------------------|------------|-----------|-----------------|------------|-----------|
| 1   | ICV         | 81            | 1  | 8                 | 27.00      | 80.6      | 80.6            | 04/30/2025 | 09:30     |
| 2   | Q1890-01    |               | 1  | 13                | 100.00     | >212.0    | >212.0          | 04/30/2025 | 10:00     |
| 3   | Q1890-01DUP |               | 1  | 14                | 100.00     | >212.0    | >212.0          | 04/30/2025 | 10:30     |
| 4   | Q1896-03    |               | 1  | 14                | 100.00     | >212.0    | >212.0          | 04/30/2025 | 11:00     |

Result = (Celsius \* 1.8) + 32

Final Result = Result + (760 - Ambient Barometric Pressure) \* 0.06

WORKLIST(Hardcopy Internal Chain)

WorkList Name : FLASH POINT-4-29

WorkList ID : 189216

Department : Wet-Chemistry

Date : 04-29-2025 16:11:16

LB135602

| Sample   | Customer Sample | Matrix | Test        | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|-------------|--------------|----------|-----------------------------|--------------|--------|
| Q1890-01 | TW-WTS-07       | Water  | Flash Point | Cool 4 deg C | ENTA05   | L41                         | 04/24/2025   | 1010B  |
| Q1896-03 | 295-BERGEN-FRAC | Water  | Flash Point | Cool 4 deg C | PSEG03   | L31                         | 04/25/2025   | 1010B  |

Date/Time 04/30/25 09:20  
Raw Sample Received by: 12(50)  
Raw Sample Relinquished by: JACOB

Date/Time 04/30/25 11:40  
Raw Sample Received by: JACOB  
Raw Sample Relinquished by: 12(50)

# TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 04/30/2025

Run Number: LB135617

BalanceID: WC SC-6

OvenID: WC OVEN#1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 04/30/2025 11:00 TEMP1 OUT: 104 °C 04/30/2025 12:00  
 TEMP2 IN: 103 °C 04/30/2025 12:30 TEMP2 OUT: 104 °C 04/30/2025 13:30  
 TEMP3 IN: 104 °C 04/30/2025 15:45 TEMP3 OUT: 103 °C 04/30/2025 17:00  
 TEMP4 IN: 104 °C 04/30/2025 17:30 TEMP4 OUT: 103 °C 04/30/2025 19:00

| 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      | LB135617BL  | LB135617BL | 1.3526                | 1.3526                      | 100                | 1.3527  | 1.3527  | 1.3527  | 0.0001     | 1           |
| 2      | LB135617BS  | LB135617BS | 1.4857                | 1.4857                      | 100                | 1.5389  | 1.5389  | 1.5389  | 0.0532     | 532         |
| 3      | Q1890-01    | TW-WTS-07  | 1.4996                | 1.4996                      | 1000               | 1.5043  | 1.5043  | 1.5043  | 0.0047     | 4.7         |
| 4      | Q1924-02    | COMP       | 1.4707                | 1.4707                      | 300                | 1.4966  | 1.4966  | 1.4966  | 0.0259     | 86.3        |
| 5      | Q1924-02DUP | COMPDUP    | 1.5037                | 1.5037                      | 300                | 1.5299  | 1.5299  | 1.5299  | 0.0262     | 87.3        |

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)

LB135617

WorkList Name : tss q1890

WorkList ID : 189218

Department : Wet-Chemistry

Date : 04-30-2025 08:19:47

| Sample     | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|------------|-----------------|--------|------|--------------|----------|-----------------------------|--------------|----------|
| Q1890-01 D | TW-WTS-07       | Water  | TSS  | Cool 4 deg C | ENTA05   | L41                         | 04/24/2025   | SM2540 D |
| Q1924-02 A | COMP            | Water  | TSS  | Cool 4 deg C | ARAM01   | L31                         | 04/30/2025   | SM2540 D |

Date/Time 04/30/25 15:00

Raw Sample Received by: SR Code

Raw Sample Relinquished by: SR

Date/Time 04/30/25

Raw Sample Received by: CPSM

Raw Sample Relinquished by: SR Code

191.00

CPSM  
SR Code

**Instrument ID:** DO METER

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135598**

|                  |  |              |                      |
|------------------|--|--------------|----------------------|
| Review By        | rubina   | Review On    | 4/30/2025 3:03:45 PM |
| Supervise By     | Iwona  | Supervise On | 4/30/2025 3:55:03 PM |
| SubDirectory     | LB135598   | 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     | WP112855,W3149,WP112832,W3103,W3109,W3105,WP112857,WP112856,WP111323 |              |                      |

| Sr# | SampleId    | ClientID     | QcType | Date           | Comment | Operator | Status |
|-----|-------------|--------------|--------|----------------|---------|----------|--------|
| 1   | LB135598BL  | LB135598BL   | MB     | 04/25/25 17:40 |         | rubina   | OK     |
| 2   | LB135598BS  | LB135598BS   | LCS    | 04/25/25 17:40 |         | rubina   | OK     |
| 3   | Q1890-01    | TW-WTS-07    | SAM    | 04/25/25 17:40 |         | rubina   | OK     |
| 4   | Q1890-01DUP | TW-WTS-07DUP | DUP    | 04/25/25 17:40 |         | rubina   | OK     |

**Instrument ID:** IGN-1

**Daily Analysis Runlog For Sequence/QCBatch ID # LB135602**

|                  |                  |              |                       |
|------------------|------------------|--------------|-----------------------|
| Review By        | Iwona            | Review On    | 4/30/2025 12:00:30 PM |
| Supervise By     | jignesh          | Supervise On | 4/30/2025 12:01:25 PM |
| SubDirectory     | LB135602         | Test         | Flash Point           |
| <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     | W3193            |              |                       |

| Sr# | SampleId    | ClientID        | QcType | Date           | Comment | Operator | Status |
|-----|-------------|-----------------|--------|----------------|---------|----------|--------|
| 1   | ICV         | ICV             | ICV    | 04/30/25 09:30 |         | Iwona    | OK     |
| 2   | Q1890-01    | TW-WTS-07       | SAM    | 04/30/25 10:00 |         | Iwona    | OK     |
| 3   | Q1890-01DUP | TW-WTS-07DUP    | DUP    | 04/30/25 10:30 |         | Iwona    | OK     |
| 4   | Q1896-03    | 295-BERGEN-FRAC | SAM    | 04/30/25 11:00 |         | Iwona    | OK     |



**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135617**

|                  |                  |              |                      |
|------------------|------------------|--------------|----------------------|
| Review By        | jignesh          | Review On    | 5/1/2025 10:56:11 AM |
| Supervise By     | Iwona            | Supervise On | 5/1/2025 12:52:51 PM |
| SubDirectory     | LB135617         | 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   | LB135617BL  | LB135617BL | MB     | 04/30/25 15:45 |         | jignesh  | OK     |
| 2   | LB135617BS  | LB135617BS | LCS    | 04/30/25 15:45 |         | jignesh  | OK     |
| 3   | Q1890-01    | TW-WTS-07  | SAM    | 04/30/25 15:45 |         | jignesh  | OK     |
| 4   | Q1924-02    | COMP       | SAM    | 04/30/25 15:45 |         | jignesh  | OK     |
| 5   | Q1924-02DUP | COMPDUP    | DUP    | 04/30/25 15:45 |         | jignesh  | OK     |

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1890

**Test :** BOD5,Flash Point,TSS

**Prepbatch ID :**

**Sequence ID/Qc Batch ID:** LB135598,LB135602,LB135617,

**Standard ID :**

WP111323,WP112832,WP112855,WP112856,WP112857,

**Chemical ID :**

M6041,W2653,W2654,W3059,W3103,W3105,W3109,W3112,W3113,W3144,W3149,W3193,



| <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_SCALE_8 (WC SC-7) | None             | Iwona Zarych<br>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>       |
|--|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 1841   | Sulfuric Acid, 1N | <a href="#">WP112832</a> | 04/25/2025       | 10/25/2025             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>04/25/2025 |
| <b><u>FROM</u></b> 2.80000ml of M6041 + 97.20000ml 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> |
|------------------|--------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 127              | BOD Dilution fluid | <a href="#">WP112855</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                    |                          |                  |                        |                    |                |                  | 04/25/2025           |

**FROM** 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="#">WP112856</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | WETCHEM_SCALE_7 (WC SC-6) | None             | Iwona Zarych         |
|                  |                                   |                          |                  |                        |                    |                           |                  | 04/25/2025           |

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

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>   | <u>NAME</u>           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|--|-----------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 128  | polyseed seed control | <a href="#">WP112857</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | None           | None             | Iwona Zarych<br>04/25/2025 |
| <p><b><u>FROM</u></b>    1.00000PILLOW of W3059 + 300.00000ml of WP112855 = Final Quantity: 300.000 ml</p> |                       |                          |                  |                        |                    |                |                  |                            |

## CHEMICAL RECEIPT LOG BOOK

| 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. | AC156212500 / GLUTAMIC ACID BIOCHEM REG, 250G | A0405990 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2653          |

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

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

| Supplier                    | ItemCode / ItemName                      | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 4620-32 / MANGANOUS SULFATE SOLUTION-364 | 2403J02 | 03/31/2026      | 04/22/2024 / lwona      | 04/22/2024 / lwona          | 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,4LIT RE | 4403S13 | 09/30/2025      | 04/22/2024 / lwona      | 04/22/2024 / lwona          | W3105          |

## CHEMICAL RECEIPT LOG BOOK

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


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

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


| Supplier | ItemCode / ItemName  | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--|-------|-----------------|-------------------------|-----------------------------|----------------|
| HACH     | 1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk | 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. | TCX0014-500ML / p-xylene | C6PEN | 03/19/2029      | 03/21/2025 / rubina     | 03/19/2025 / lwona          | W3193          |



**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

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. Acros Organics 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 human or animals. It is the responsibility of the purchaser, formulator or those performing further manufacturing 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.

|                              |                         |                                    |               |
|------------------------------|-------------------------|------------------------------------|---------------|
| <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



## CERTIFICATE OF ANALYSIS

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

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

PolySeed® • Part No. P-110 • Lot 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



## Certificate of Analysis

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

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

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

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

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

*Jerisa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

\*Based on suggested storage condition.

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

**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

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

## 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.



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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W3193, W3194 Received on 03/19/2025 by IZ

## Certificate of Analysis

03/19/2025(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.

T-PLUS Nihonbashi-Kodemmacho

16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

|   |            |  |
|---|------------|--|
| Chemical Name: <i>p</i> -Xylene           |            |  |
| Product Number: X0014<br>CAS RN: 106-42-3 | Lot: C6PEN |  |

| Tests      | Results                | Specifications                             |
|------------|------------------------|--|
| Appearance | Colorless clear liquid | Colorless to Almost colorless clear liquid |
| Purity(GC) | 99.7 %                 | min. 99.0 %                                |

TCI Lot numbers are 4-5 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.

The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

### Customer Service:

TCI AMERICA

Tel: +1-800-423-8616 / +1-503-283-1681

Fax: +1-888-520-1075 / +1-503-283-1987

E-mail: Sales-US@TCIchemicals.com

Takuya Nishioka  
Quality Assurance Department Manager





# SHIPPING DOCUMENTS

**284 Sheffield Street, Mountainside, NJ 07092**  
**(908) 789-8900 Fax: (908) 788-9222**  
**www.chemtech.net**

### 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

Order ID : Q1890      ENTA05

Order Date : 4/25/2025 11:37:00 AM

Project Mgr :

Client Name : ENTACT

Project Name : 540 Degraw St, Brooklyn, N

Report Type : Level 1

Client Contact : Jarod Stanfield

Receive DateTime : 4/25/2025 12:00:00 AM

EDD Type : Excel NJ

Invoice Name : ENTACT

Purchase Order :

16:28

Hard Copy Date :

Invoice Contact : Jarod Stanfield

Date Signoff :

| LAB ID   | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD   | FAX DATE | DUE DATES   |
|----------|-----------|--------|-------------|-------------|--------------|------------|----------|----------|-------------|
| Q1890-01 | TW-WTS-07 | Water  | 04/24/2025  | 15:00       |              |            |          |          |             |
|          |           |        |             |             | VOCMS Group4 |            | 8260-Low |          | 5 Bus. Days |

Relinquished By :

Date / Time : 4/25/25 1640

Received By :

Date / Time : 04/28/25 8:30

Reg #4

Storage Area : VOA Refridgerator Room

\*samples in (Sm) Frig @ 1640.