EDWARD F. POOLOS
DIRECTOR

JEFFERY W. KITCHENS
DEPUTY DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

OCT 3 0 2025

MR. CHRISTOPHER PETERSON
PRESIDENT
HERO BX ALABAMA, LLC
1540 EAST LAKE ROAD
ERIE, PA 16511

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0026921

Dear Mr. Peterson:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you have utilized the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). The Department transitioned from the E2 Reporting System to the Alabama Environmental Permitting and Compliance System (AEPACS) for the submittal of DMRs on November 15, 2021. AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. The Department has used the E2 User account information to set up a similar User Profile in AEPACS based on the following criteria:

1. The user has logged in to E2 since October 1, 2019; and
2. The E2 user account is set up using a unique email address.

E2 users that met the above criteria will only need to establish an ADEM Web Portal account (https://prd.adem.alabama.gov/awp) under the same email address as their E2 account to have the same permissions in AEPACS as they did in E2. They will also automatically be linked to the same facilities they were in E2.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Clint Dear by e-mail at **clint.dear@adem.alabama.gov** or by phone at **(334) 271-7851.**

Sincerely,

Scott Jackson, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Office
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Office
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Coastal Office
1615 South Broad Street
Mobile, AL 36605
(251) 450-3400
(251) 479-2593 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: HERO BX ALABAMA LLC (FKA VEROS ENERGY, LLC)

FACILITY LOCATION: HERO BX ALABAMA LLC (FKA VEROS ENERGY, LLC)
12982 CHEROKEE BND
MOUNDVILLE, ALABAMA 35474
TUSCALOOSA COUNTY

PERMIT NUMBER: AL0026921

RECEIVING WATERS: DSN001 - CARTHAGE BRANCH
DSN002 - CARTHAGE BRANCH
DSN003 - CARTHAGE BRANCH
DSN004 - CARTHAGE BRANCH

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

DRAFT

Alabama Department of Environmental Management
Water Division Chief

Table of Contents

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PART I: DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

DSN001Q: Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN001Q (Continued): Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Ethylbenzene (34371) Effluent Gross Value	*****	*****	*****	*****	*****	1244 Maximum Daily	ug/l	Quarterly	Grab	All Months
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months

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4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN002Q: Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months

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DSN002Q (Continued): Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

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Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months

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4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN003Q: Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

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BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months

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3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

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DSN003Q (Continued): Storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

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Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months

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3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN004Q: DSN04A and storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months
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3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN004Q (Continued): DSN04A and storm water runoff associated with the manufacture of biodiesel and its by-products. 3/4/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

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2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

DSN04A1: Boiler blowdown and non-contact cooling water discharges. 3/5/

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Frequency[2]	Sample Type[1]	Seasonal
Temperature, Water Deg. Fahrenheit (00011) Effluent Gross Value	*****	*****	*****	*****	*****	90 Maximum Daily	deg F	Monthly	Grab	All Months
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Monthly	Grab	All Months
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Monthly	Estimate	All Months
Chlorine, Total Residual (50060) 4/ Effluent Gross Value	*****	*****	*****	*****	0.011 Monthly Average	0.019 Maximum Daily	mg/l	Monthly	Grab	All Months
Chemical Oxygen Demand (COD) (81017) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Monthly Average	mg/l	Monthly	Grab	All Months

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2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ A measurement of Total Residual Chlorine below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as ***B** on the discharge monitoring reports.

5/ This outfall should be sampled during a non-storm event.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the

permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. The first report is due on the **28th day of (MONTH, YEAR).** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a **quarterly** basis. The first report is due on the **28th day of [Month, Year].** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b electronically.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's electronic system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the Department's electronic system is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the Department's electronic system resuming operation, the permittee shall enter the data into the Department's electronic system, unless an alternate timeframe is approved by the Department. A comment should be included on the electronic DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Water Division
Office of Water Services
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Water Division
Office of Water Services
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management`
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

(1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";

(2) threatens human health or welfare, fish or aquatic life, or water quality standards;

(3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and

(6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (http://adem.alabama.gov/DeptForms/Form421.pdf) and include the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

(1) name and general composition of biocide or chemical;

(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;

(3) quantities to be used;

(4) frequencies of use;

(5) proposed discharge concentrations; and

(6) EPA registration number, if applicable.

b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the

application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based on Estimated Characteristics

a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.

b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II: OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall; and

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. Duty to Comply with Permit, Rules, and Statutes

1. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The permittee shall notify the Director as soon as it is known or there is reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(i) one hundred micrograms per liter;

(ii) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;

(iii) five times the maximum concentration value reported for that pollutant in the permit application; or

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(i) five hundred micrograms per liter;

(ii) one milligram per liter for antimony;

(iii) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. Compliance with Toxic Pollutant Standard or Prohibition

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. Discharge of Wastewater Generated by Others

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III: OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. begun, or caused to begin as part of a continuous on-site construction program:

      (1) any placement, assembly, or installation of facilities or equipment; or

      (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.

5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

9. Daily maximum - means the highest value of any individual sample result obtained during a day.

10. Daily minimum - means the lowest value of any individual sample result obtained during a day.

11. Day - means any consecutive 24-hour period.

12. Department - means the Alabama Department of Environmental Management.

13. Director - means the Director of the Department.

14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).

15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.

16. DO – means dissolved oxygen.

17. 8HC – means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

18. EPA - means the United States Environmental Protection Agency.

19. FC – means the pollutant parameter fecal coliform.

20. Flow – means the total volume of discharge in a 24-hour period.

21. FWPCA - means the Federal Water Pollution Control Act.

22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. MGD – means million gallons per day.

27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:

    a. from which there is or may be a discharge of pollutants;

    b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c. which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

38. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV: ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

(1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;

e. Prevent or minimize stormwater contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general. Routine inspections should be done at a frequency to ensure that the BMP is continually implemented and effective and in no case less frequent than once per year;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;

i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;

j. Provide for the disposal of all used oils, hydraulic fluids, firefighting foams, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the

substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.

b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.

b. All test procedures will be in accordance with part I.B. of this permit.

C. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

The entity providing water to the permittee is a public water system in accordance with Section 1401 of the Safe Drinking Water Act or the water used for cooling consists of effluent, which would otherwise be discharged; therefore, the permittee is exempt from this permit condition.

ADEM PERMIT RATIONALE

PREPARED DATE: September 26, 2025
PREPARED BY: Clint Dear

Permittee Name: Hero BX Alabama LLC (fka Veros Energy, LLC)

Facility Name: Hero BX Alabama LLC (fka Veros Energy, LLC)

Permit Number: AL0026921

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS (DSN) & DESCRIPTIONS:

DSN	Description
DSN001	Storm water runoff associated with the manufacture of biodiesel and its by-products
DSN002	Storm water runoff associated with the manufacture of biodiesel and its by-products.
DSN003	Storm water runoff associated with the manufacture of biodiesel and its by-products.
DSN004	DSN04A and storm water runoff associated with the manufacture of biodiesel and its by-products.
DSN04A	Boiler blowdown and non-contact cooling water.

INDUSTRIAL CATEGORY: NON-CATEGORICAL

MAJOR: **No**

STREAM INFORMATION:

Receiving Stream:	Carthage Branch
Classification:	Fish & Wildlife
River Basin:	Black Warrior
7Q10:	0 cfs
7Q2:	0 cfs
303(d) List:	Yes
Impairment:	Pathogens (E. Coli)
TMDL:	No

DISCUSSION:

The facility manufactures biodiesel fuel, which is derived from a chemical reaction of feedstock oils (used cooking oil, soybean oil, other vegetable oil, and animal fats), methanol, acids, sodium methylate, and potassium hydroxide. Crude glycerin is a byproduct of the process, and methanol is recovered in the process and reused. Storm water is discharged through outfalls DSN001 through DSN004. There is also a possibility that boiler blowdown and non-contact cooling water could be discharged through Outfall DSN004.

ADEM Administrative Rule 335-6-10-.12 requires applicants for new or expanded discharges to Tier II waters to demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge. Therefore, the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

EPA has not promulgated specific guidelines for the discharges covered under the proposed permit. Proposed permit limits are based on Best Professional Judgment. The proposed frequencies are based on a review of site specific conditions, evaluation of similar facilities and is consistent with EPA Multi-Sector General Permits.

There shall be no discharge of process wastewater on this permit. This permit only authorizes the discharge of stormwater, boiler blowdown, and non-contact cooling water.

DSN001Q: Storm water runoff associated with the manufacture of biodiesel and its by-products.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months	WQBEL
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	WQBEL
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Ethylbenzene (34371) Effluent Gross Value	*****	*****	*****	*****	*****	1244 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months	BPJ
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months	BPJ
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ

DSN002Q: Storm water runoff associated with the manufacture of biodiesel and its by-products.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months	WQBEL
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	WQBEL
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Ethylbenzene (34371) Effluent Gross Value	*****	*****	*****	*****	*****	1244 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months	BPJ
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months	BPJ
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ

DSN003Q: Storm water runoff associated with the manufacture of biodiesel and its by-products.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months	WQBEL
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	WQBEL
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Ethylbenzene (34371) Effluent Gross Value	*****	*****	*****	*****	*****	1244 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months	BPJ
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months	BPJ
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ

DSN004Q: DSN04A and storm water runoff associated with the manufacture of biodiesel and its by-products.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Quarterly	Grab	All Months	WQBEL
Solids, Total Suspended (00530) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Carbon, Tot Organic (TOC) (00680) Effluent Gross Value	*****	*****	*****	*****	*****	110 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Iron, Total (As Fe) (01045) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	WQBEL
Organics, Gasoline Range (04584) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Toluene (34010) Effluent Gross Value	*****	*****	*****	*****	*****	8723 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Benzene (34030) Effluent Gross Value	*****	*****	*****	*****	*****	15.5 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Ethylbenzene (34371) Effluent Gross Value	*****	*****	*****	*****	*****	1244 Maximum Daily	ug/l	Quarterly	Grab	All Months	WQBEL
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Quarterly	Estimate	All Months	BPJ
Xylene (81551) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	ug/l	Quarterly	Grab	All Months	BPJ
Hydrocarbons, Total Petroleum (82181) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ

DSN04A1: Boiler blowdown and non-contact cooling water discharges.

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type	Seasonal	Basis
Temperature, Water Deg. Fahrenheit (00011) Effluent Gross Value	*****	*****	*****	*****	*****	90 Maximum Daily	deg F	Monthly	Grab	All Months	WQBEL
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	Monthly	Grab	All Months	WQBEL
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	*****	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Monthly	Estimate	All Months	BPJ
Chlorine, Total Residual (50060) Effluent Gross Value	*****	*****	*****	*****	0.011 Monthly Average	0.019 Maximum Daily	mg/l	Monthly	Grab	All Months	WQBEL
Chemical Oxygen Demand (COD) (81017) Effluent Gross Value	*****	*****	*****	*****	*****	(Report) Monthly Average	mg/l	Monthly	Grab	All Months	BPJ

*Basis for Permit Limitation

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximum Daily Load Requirements

Discussion for DSN001Q – DSN004Q:

Best Professional Judgment (BPJ)
The parameters of concern for this facility are based on the parameters of concern listed in EPA forms 2E, 2F, and from the current permit. These parameters are considered to be reflective of the operations at this facility.

Biochemical Oxygen Demand (BOD_5)
Monitoring for BOD_5 is proposed as an indicator pollutant to measure the effectiveness of the BMP plan. Recent historical DMRs submitted by the facility do not show elevated levels BOD in the facility's discharge which would necessitate a numeric limit. In addition, EPA has not established numeric limitations for BOD for the facility's type of operations.

Total Suspended Solids (TSS)
Monitoring for TSS is proposed as an indicator pollutant to measure the effectiveness of the BMP plan.

Oil & Grease
The daily maximum limit of 15 mg/L for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper Best Management Practices (BMPs).

Total Organic Carbon (TOC)
The TOC daily maximum limit of 110 mg/l for the storm water requirements is proposed based on BPJ in comparing this facility's operations to the petroleum industry under 40 CFR Part 419 [419.13(f)(1) and 419.33(f)(1)]. It is believed the permittee has the ability to achieve this limit through the effective use of its BMP procedures.

Iron Total (as Fe), Organics, Gasoline Range (GRO), and Hydrocarbons, Total Petroleum (TPH)
The Department conducted an inspection of the facility on October 17, 2019. During the inspection, red soil was noted near one of the outfalls. The facility conducted a follow-up investigation and found that some of the soils around the site contained levels of iron, Gasoline Range Organics (GRO) and Total Petroleum Hydrocarbons (TPH).

Based on the investigation and historical DMR data, the parameters of Iron, GRO, and TPH will continue to be monitored on a quarterly basis.

Water Quality Based Effluent Limits (WQBEL)

pH
ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2., states that, for streams classified as Fish and Wildlife, "sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from the normal or natural pH, nor be less than 6.0, nor greater than 8.5." As a result, the permit imposes a daily minimum pH limit of 6.0 s.u. and a daily maximum pH limit of 8.5 s.u.

Benzene, Ethylbenzene, Toluene, and Xylene:
The facility is currently required to monitor for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) at its external outfalls in its permit. Water quality based limits of Benzene, Ethylbenzene, and Toluene are proposed individually in the draft permit to ensure compliance with each parameter.

A daily maximum Benzene limit of 15.5 ug/l, a daily maximum Toluene limit of 8,723 ug/l, and a daily maximum Ethylbenzene limit of 1244 ug/l will all continue in this permit issuance. These limits are based on the human health water quality criteria for Benzene, Toluene, and Ethylbenzene, respectively.

Monitoring for Xylene will continue to be required as report only, since a water quality limit for Xylene has not been promulgated at this time. Monitoring for the BTEX components are required at once per quarter.

E. Coli

Carthage Branch is listed on the 303(d) List of Impaired Waters for pathogens (E. coli). The source of the impairment is from pasture grazing. This is not a pollutant of concern for a facility of this type, and therefore, no monitoring requirements are proposed for pathogens in this permit issuance.

Discussion for DSN04A1:

In addition to stormwater, Outfall DSN004 receives boiler blowdown and non-contact cooling water. Monitoring is required internally at DSN04A to determine the characteristics of these discharges absent stormwater. Previously, DSN01A – DSN03A were similarly permitted as internal monitoring points; however, these will be removed from this permit issuance due to no longer receiving boiler blowdown and non-contact cooling water. A footnote has been added in the permit to note that DSN04A must be sampled during a non-storm event.

Best Professional Judgment (BPJ)

The parameters of concern for this outfall are based on the parameters of concern listed in EPA forms 2E and from the current permit. These parameters have proven to be reflective of the operations at this facility.

Chemical Oxygen Demand (BOD_5)

Monitoring for COD is proposed as an indicator pollutant in the discharged wastewaters.

Water Quality Based Effluent Limits (WQBEL)

Temperature

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)3., indicates that, for streams classified as Fish and Wildlife, the maximum temperature shall not exceed 90°F. As a result, the permit imposes a daily maximum limit of 90°F for temperature. Temperature monitoring is to be conducted once per month during a non-storm event.

pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2., states that, for streams classified as Fish and Wildlife, "sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from the normal or natural pH, nor be less than 6.0, nor greater than 8.5." As a result, the permit imposes a daily minimum pH limit of 6.0 s.u. and a daily maximum pH limit of 8.5 s.u. Monitoring for pH is to be conducted once per month during a non-storm event.

Total Residual Chlorine (TRC)

Since the facility uses chlorinated source water, TRC limits are being imposed in the permit. The TRC limits of 0.011 mg/L (monthly average) and 0.019 mg/L (daily maximum) are based on EPA's recommended water quality values. TRC is to be monitored once per month during a non-storm event. In accordance with a letter dated August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/L shall be considered below detection for compliance purposes and should be reported as *B on the electronic discharge monitoring report.

Whole Effluent Toxicity (Cooling Water Additives)

The discharge of biocides and corrosion inhibitors with non-process wastewaters (e.g. once through cooling water, etc.) can introduce the potential for toxicity in receiving waters. The facility is expected to verify that the use of these chemicals will not present potential toxic effects to representative organisms in the receiving waters and to ensure that the chemicals are used in a manner that is consistent with their labeling and standard industry practices.

Monitoring for Whole Effluent Toxicity is not proposed based on the use of the chemicals specified in the permit application; however, the Permittee should refer to Part I.D.5 of the permit for further requirements regarding Cooling Water and Boiler Water Additives.

Best Management Practices

BMPs are believed to be the most effective way to control the contamination of storm water from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of storm water contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

The Department has updated the BMP language located in Part IV.A.2.g of the Permit. The Permit Condition now states, "Provide for routine inspections, or days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general. Routine inspections should be done at a frequency to ensure that the BMP is continually implemented and effective and in no case less frequent than once per year." This clarification was added to be consistent with 40 CFR Part 122.43(c).

Cooling Water Intake Structure Requirements

The entity providing water to the permittee is Moundville Water Works, and is a public water system in accordance with Section 1401 of the Safe Drinking Water Act or the water used for cooling consists of effluent, which would otherwise be discharged; therefore, the permittee is exempt from this permit condition.

Per the Department's Drinking Water Branch, the Moundville Water Works receives its intake water exclusively from groundwater.

NPDES/SID Permit Fee Sheet

Permit Number: AL0026921
Permittee: Hero BX Alabama LLC (fka Veros Energy, LLC)
Site: Hero BX Alabama LLC (fka Veros Energy, LLC)
County: Tuscaloosa
Submission Reference Number: HQ6-WR4X-9CMND
Submission Received Date 02/26/2025
Assigned Staff: Clint Dear
Total Charges: $5,615.00
Totals Payments: $5,615.00
Amount Due: $0.00

Charges

Type	Amount
Base Charge: NPDES Individual Permit Mod/Reissue (Form 187) - Supplementary Information for Industrial Facilities: ;	$5,615.00

Payments

Type	Amount	Date	Check/Payment Confirmation Number
Payment	$5,615.00	07/17/2025	3021

NPDES Individual Permit Mod/Reissue (Form 187) - Supplementary Information for Industrial Facilities

version 2.10

(Submission #: HQ6-WR4X-9CMND, version 1)

Details

Submission ID HQ6-WR4X-9CMND

Form Input

General Instructions

This form should be used to submit the following permit requests for permitted Industrial Individual NPDES facilities

•Permit Transfers
•Permittee/Facility Name Changes
•Minor Modifications, for example:
> Frequency of monitoring or reporting modifications
> Changes to interim compliance dates in a schedule of compliance, not including the final compliance date.
> Removal of a point source outfall, provided the discharge is terminated and does not result in discharge of pollutants from other outfalls, except in accordance with permit limits.
•Major Modifications, (Any modifications not covered by minor mod's, whether Effluent Limit changes occur or not)
•Reissuances
•Reissuance of a permit due to approaching expiration
•Revocation and Reissuance of permit prior to its scheduled expiration

Applicable Base Fees:
•Permit Transfers and/or Permittee/Facility Name Changes
> $800
•Minor Modifications (see examples above)
> $3,940 (Major Sources)
> $3,120 (Minor Sources)
•Major Modifications
> $17,990 (Major Sources)
> $5,615 (Minor Sources)
•Reissuances
> $17,990 (Major Sources)
> $5,615 (Minor Sources)

For assistance, please click here to determine the permit staff responsible for the site or call (334) 271-7799

Processing Information

Purpose of Application
Reissuance of Permit Due to Approaching Expiration

Please indicate if the Permittee is applying for a permit transfer and/or name change in addition to permit modification or reissuance:
None

Action Type
Reissuance

If applicable, briefly describe any planned changes at the facility that are included in this reissuance application:
None

General Information

SID Permit Number (if your facility currently holds an SID permit, please provide that number below):
NONE PROVIDED

NPDES or General Permit Numbers (if applicable, please list all permit numbers):
AL0026921

Is this facility/site only applying for permit coverage for discharges from stormwater?
Yes

Is a new stormwater outfall being added?
Yes

Permit Information

Permit Number
AL0026921

Current Permittee Name
Hero BX Alabama LLC (fka Veros Energy, LLC)

Permittee

Permittee Name
Hero BX Alabama LLC (fka Veros Energy, LLC)

Mailing Address

12982 CHEROKEE BND

MOUNDVILLE, AL 35474

Per ADEM Admin. Code r. 335-6-6-.09 (1), a Responsible Official is defined as CEO, President, any position at a level of Vice President *or* higher, Owner, Partner, Managing Member (LLC), or ranking elected official. Please provide the contact information for the person meeting this definition.

Do NOT enter information for a person that is/will be a Duly Authorized Representative (DAR) (i.e. a person that has been delegated signatory permissions by a Responsible Official). A person that is a Duly Authorized Representative is NOT considered a RESPONSIBLE OFFICIAL.

Responsible Official

Prefix
Mr.

First Name	Last Name
Christopher	Peterson

Title
President

Organization Name
Hero BX Alabama, LLC

Phone Type	Number	Extension
Business	814-528-9209	

Email
cpeterson@herobx.com

Mailing Address

1540 East Lake Road

Erie, PENNSYLVANIA 16511

Does the Responsible Official intend to delegate signatory authority for DMRs or other compliance reports to an individual as a duly authorized representative (DAR) for this site?
Yes

Pursuant to ADEM Admin. Code r. 335-6-6-.09(2), a person may ONLY be delegated signatory authority for reports if that person has responsibility for the overall operation of the regulated facility or regulated activity. Once such delegation is made, that person is considered a duly authorized representative (DAR).

Existing Permit Contacts

Affiliation Type	Contact Information	Remove?
Permittee	Hero BX Alabama LLC (fka Veros Energy, LLC)	Keep
DMR Contact	John Peterson	Remove
Notification Recipient,Responsible Official	Michael J. Lies, Hero Bx	Remove
Designated Agent	Scott Newell, Hero Bx	Remove
Environmental Contact	Scott Newell, Hero BX Alabama LLC (fka Veros Energy, LLC)	Remove
Engineer	Tyler Outlaw, Hero BX	Keep

Duly Authorized Representative (DAR)

Duly Authorized Representative - Delegation of Signatory Authority by Responsible Official

If the permittee has not already prepared a signed and dated delegation form/letter, an optional form can be downloaded from the link below. All information should be completed along with the responsible official's signature and date signed. That signed form can be uploaded in the attachment section below titled "DAR Documentation".
Optional Delegation of Signatory Authority Form

Delegation Document for Duly Authorized Representation (DAR)
DOC092424.pdf - 09/24/2024 02:01 PM
Comment
NONE PROVIDED

Pursuant to ADEM Admin. Code r. 335-6-6-.09(2), a person may ONLY be delegated signatory authority for reports if that person has responsibility for the overall operation of the regulated facility or activity. Once such delegation is made, that person is considered a duly authorized representative (DAR).

Authorized Rep

Prefix
Mr.

First Name	Last Name
John	Feighner

Title
Safety & Environmental Manager

Organization Name
Hero BX

Phone Type	Number	Extension
Business	814-528-9238	

Email
jfeighner@herobx.com

Mailing Address

1540 E LAKE RD

ERIE, PA 16511

United States

Facility/Site Information

Facility/Site Name
Hero BX Alabama LLC (fka Veros Energy, LLC)

Organization/Ownership Type
LLC

Facility/Site Address or Location Description

12982 CHEROKEE BND

MOUNDVILLE, AL 35474

Facility/Site County
Tuscaloosa

Detailed Directions to the Facility/Site
From downtown Tuscaloosa: Take I-359 S for approximately 3 miles to state highway 69. Continue straight on AL-69 S for approximately 12 miles. Turn right onto Cracker Asphalt Road for approximately 0.6 mile, then take a left for approximately 0.2 mile, then 12982 Cherokee Bend Ln, Moundville, AL 35474 will be straight ahead.

Facility Map
MOU-ENG-DWG-0001.pdf - 09/24/2024 02:23 PM
Comment
NONE PROVIDED

Please refer to the link below for Lat/Long map instruction help:
Map Instruction Help

Facility/Site Front Gate Latitude and Longitude
33.009077359071895,-87.62472152709961

12982 Cherokee Bend Drive, Moundville, AL

SIC Code(s) [Please enter Primary SIC Code first followed by any additional applicable SIC Codes]
2869-Industrial Organic Chemicals

NAICS Code(s) [Please enter Primary NAICS Code first followed by any additional applicable NAICS Codes]
325199-All Other Basic Organic Chemical Manufacturing

Facility/Site Contact

Prefix
Mr.

First Name	Last Name
John	Feighner

Title
Safety & Environmental Manager

Organization Name
Hero BX

Phone Type	Number	Extension
Business	814-528-9238	

Email
jeighner@herobx.com

Address
1540 E LAKE RD
ERIE, PA 16511

DMR Contact(s) (1 of 2)

DMR Contact

Prefix
Mr.

First Name	Last Name
John	Feighner

Title
Safety & Environmental Manager

Phone Type	Number	Extension
Business	814-528-9238	

Email
jfeighner@herobx.com

Address
1540 E LAKE RD
ERIE, PA 16511

DMR Contact(s) (2 of 2)

DMR Contact

Prefix
Ms.

First Name	Last Name
Molly	Giliberto

Title
Safety & Environmental Specialist

Phone Type	Number	Extension
Business	814-528-9257	

Email
mgiliberto@herobx.com

Address
1540 E LAKE RD
ERIE, PA 16511

Applicant Business Entity Information

Address of Incorporation
Hero BX Alabama, LLC
12982 Cherokee Bend Dr.
Moundville, AL 35474

Agent Designated by the Corporation for Purposes of Service

Name	Address
Registered Agents Incorporated	212 W. Troy Street, Suite B Dothan, AL 36303

Please provide all corporate officers

Name	Title	Address
Christopher Peterson	President	1540 East Lake Road Erie, PA 16511
John Nies	VP of Operations	1540 East Lake Road Erie, PA 16511

Does the applicant applying for coverage have a Parent Corporation?
Yes

Parent Corporation of Applicant

Name	Address
Lake Erie Biofuels, LLC dba Hero BX	Hero BX 1540 East Lake Road Erie, PA 16511

Does the applicant applying for coverage have Subsidiary Corporations?
No

Enforcement History

Has the applicant been issued any Notices of Violation, Orders (Consent or Administrative/Unilateral), or Judicial Actions (Complaint, Settlement Agreement, Consent Decree, or Court Order) concerning water pollution or other permit violations within the State of Alabama in the past five years?
No

Business Activity

A facility with processes inclusive in the business areas shown below may be covered by Environmental Protection Agency's (EPA) categorical effluent guideline standards. These facilities are termed "categorical users". If unsure, please call the Industrial Section at (334) 271-7943 to discuss or use the link below to contact the Permit Engineer for the county the facility is/will be located in.
Industrial Section Assignment Map

If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), please check the category of business activity:
Organic Chemicals Manufacturing

Give a brief description of all operations at this facility including primary products or services:
Hero BX manufactures biodiesel fuel, which is derived from a chemical reaction of feedstock oils (used cooking oil, soybean oil, other vegetable oils, animal fats), methanol, acids, sodium methylate and potassium hydroxide. Crude glycerin is the byproduct of the process.

Outfalls (1 of 8)

001

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
001

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.00888900000000, -87.62416700000000

Outfalls (2 of 8)

002

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
002

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.00861100000000, -87.62666700000000

Outfalls (3 of 8)

003

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
003

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.01000000000000, -87.62722200000000

Outfalls (4 of 8)

004

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
004

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.01055600000000, -87.62638900000000

Outfalls (5 of 8)

01A

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
01A

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.00888900000000, -87.62416700000000

Outfalls (6 of 8)

02A

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
02A

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.00861100000000, -87.62666700000000

Outfalls (7 of 8)

03A

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
03A

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.01000000000000, -87.62722200000000

Outfalls (8 of 8)

04A

Please click below if this discharge no longer exists or is no longer required:
NONE PROVIDED

Outfall Identifier
04A

Receiving Water
Carthage Branch

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:
Intermittent Discharge

Estimated Average Daily Flow (MGD)
0

Monitoring/Sampling Point Location
33.01055600000000, -87.62638900000000

Stormwater Outfalls (1 of 1)

SW01

Please click below if this discharge no longer exists or is no longer required:
Delete this Outfall

Provide the reason this outfall is being deleted.
Entered in Error

Outfall Identifier
SW01

Anti-Degradation Evaluation

Is this a new or increased discharge that began after April 3, 1991?
No

Additional Information

Do you share an outfall with another facility?
No

Indicate if automatic sampling equipment or continuous wastewater flow metering equipment is being operated at this facility:

Current	Yes/No
Continuous Wastewater Flow Metering Equipment	No
Automatic Sampling Equipment	No

Indicate if installation automatic sampling equipment or continuous wastewater flow metering equipment planned at this facility:

Planned	Yes/No
Continuous Wastewater Flow Metering Equipment	No
Automatic Sampling Equipment	No

Please attach the process schematic with sampling equipment locations.
Flow Schematic.docx - 01/28/2025 12:11 PM
Comment
NONE PROVIDED

Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics (Consider production processes as well as air or water pollution treatment processes that may affect the discharge.)?
No

Do you use biocides, corrosion inhibitors, or chemical additives in your cooling or blowdown water?
Yes

The applicant must provide a list of the following information for each biocide or chemical:

(1) Name and general composition of biocide or chemical (if composition is not provided on MSDS sheet)
(2) 48-hour or 96-hour LC50 data for organisms representative of the biota of the waterway into which the discharge will ultimately reach. For freshwater, the fathead minnow (Pimephales promelas) and cladoceran (Ceriodaphnia dubia) are the test organisms. For salt water, the mysid shrimp and the sheepshead minnow or inland silverside are the test organisms. Other acceptable aquatic organisms may be allowed by the Department if sufficient information is provided. If the MSDS sheet does not provide data for the organisms specified above, the facility must provide the data unless the Department grants approval for an alternate organism.
(3) Quantities to be used
(4) Frequencies of use
(5) Maximum proposed discharge concentrations
(6) EPA registration of number, if applicable and is not provided on the MSDS sheet.

List of Biocides

Please list biocides below:
TP-1022T
TPH-215
TP-8125
TP-1046
TP-1480
TP-1030
TP-1540

Biocide/Corrosion Inhibitor Summary Sheet
NPDES Hero - Updated 1132025.docx - 01/16/2025 09:08 AM
Comment
NONE PROVIDED

Safety Data Sheets (SDS)
Safety Data Sheets.pdf - 01/16/2025 09:16 AM
Comment
NONE PROVIDED

Treatment

Is any form of wastewater treatment (see list below) practiced at this facility?
No

Is any form of wastewater treatment (or changes to an existing wastewater treatment) planned for this facility within the next three years?
No

Facility Operational Characteristics

Indicate whether the facility discharge is:
Continuous through the year

Comments:
NONE PROVIDED

Non-Discharged Wastes

Are any waste liquids or sludges generated and not disposed of in the sanitary sewer system?
Yes

Waste Generated	Quantity (lbs/day)	Disposal Method	On-Site or Off-Site?	If Off-Site, Identify the Facility:

Waste Generated	Quantity (lbs/day)	Disposal Method	On-Site or Off-Site?	If Off-Site, Identify the Facility:
Wastewater/sludge	5746	Industrial wastewater treatment	Off-Site	Environmental Remedies

Does any outside firm remove any of the above checked wastes?
Yes

Hauler Information

Name	Address	City	State	Zip
Environmental Remedies	460 Sawtell Ave.	Atlanta	GA	30315

EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required.

Form 1 - General Information Form required for all applications

Form 2C - Should be submitted for facilities with existing discharge(s) of process wastewater.

Form 2D - Should be submitted for facilities that have not yet commenced discharge(s) of process wastewater.

Form 2E - Should be submitted for facilities who discharge non-process wastewater, such as non-contact cooling water or boiler blowdown.

Form 2F - Should be submitted for all discharges of storm water associated with an industrial activity.
The EPA application forms are found on the Department's website here.

EPA Form 1

EPA Form 1 with signature.pdf - 02/26/2025 07:54 AM
Topo Map.pdf - 02/26/2025 07:58 AM
Comment
NONE PROVIDED

Additional EPA Forms (EPA Form 2C, 2D, 2E and/or 2F)

Site drainage.pdf - 02/26/2025 07:58 AM
EPA Form 2F Tables - Outfall 001.pdf - 02/26/2025 07:59 AM
Outfall analysis 1-27-25.pdf - 02/26/2025 07:59 AM
EPA Form 2F Tables - Outfall 004.pdf - 02/26/2025 07:59 AM
EPA Form 2F Tables - Outfall 003.pdf - 02/26/2025 07:59 AM
EPA Form 2F with signature.pdf - 02/26/2025 07:59 AM
EPA Form 2F Tables - Outfall 002.pdf - 02/26/2025 07:59 AM
EPA Form 2E with signature.pdf - 02/26/2025 07:59 AM
EPA Form 1 with signature.pdf - 02/26/2025 07:59 AM
Flow Schematic.docx - 02/26/2025 07:59 AM
Comment
NONE PROVIDED

Other attachments (as needed)

NONE PROVIDED
Comment
NONE PROVIDED

Additional Attachments

Please attach any additional information as needed.

NONE PROVIDED
Comment
NONE PROVIDED

Application Preparer

Application Preparer

Prefix
Mr.

First Name	Last Name
John	Feighner

Title
Safety & Environmental Manager

Organization Name
Hero BX

Phone Type	Number	Extension
Business	814-528-9238	

Email
jfeighner@herobx.com

Address
1540 E LAKE RD
ERIE, PA 16511

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☑ I am the owner of the account used to perform the electronic submission and signature.
- ☑ I have the authority to submit the data on behalf of the facility I am representing.
- ☑ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☑ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted; based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

"I further certify under penalty of law that all analyses reported as less than detectable in this application or attachments thereto were performed using the EPA approved test method having the lowest detection limit for the substance tested."

NOTE: 335-6-5-.14 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.
The application shall be signed by a responsible official, a request for variance from categorical pretreatment standards, and a category determination request shall be signed by a responsible official, as indicated below:

- *In the case of a corporation, by a principal executive officer of at least the level of vice president;*
- *In the case of a partnership, by a general partner;*
- *In the case of a sole proprietorship, by the proprietor; or*
- *In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official*

Signed By Chris Peterson on 02/26/2025 at 8:59 AM

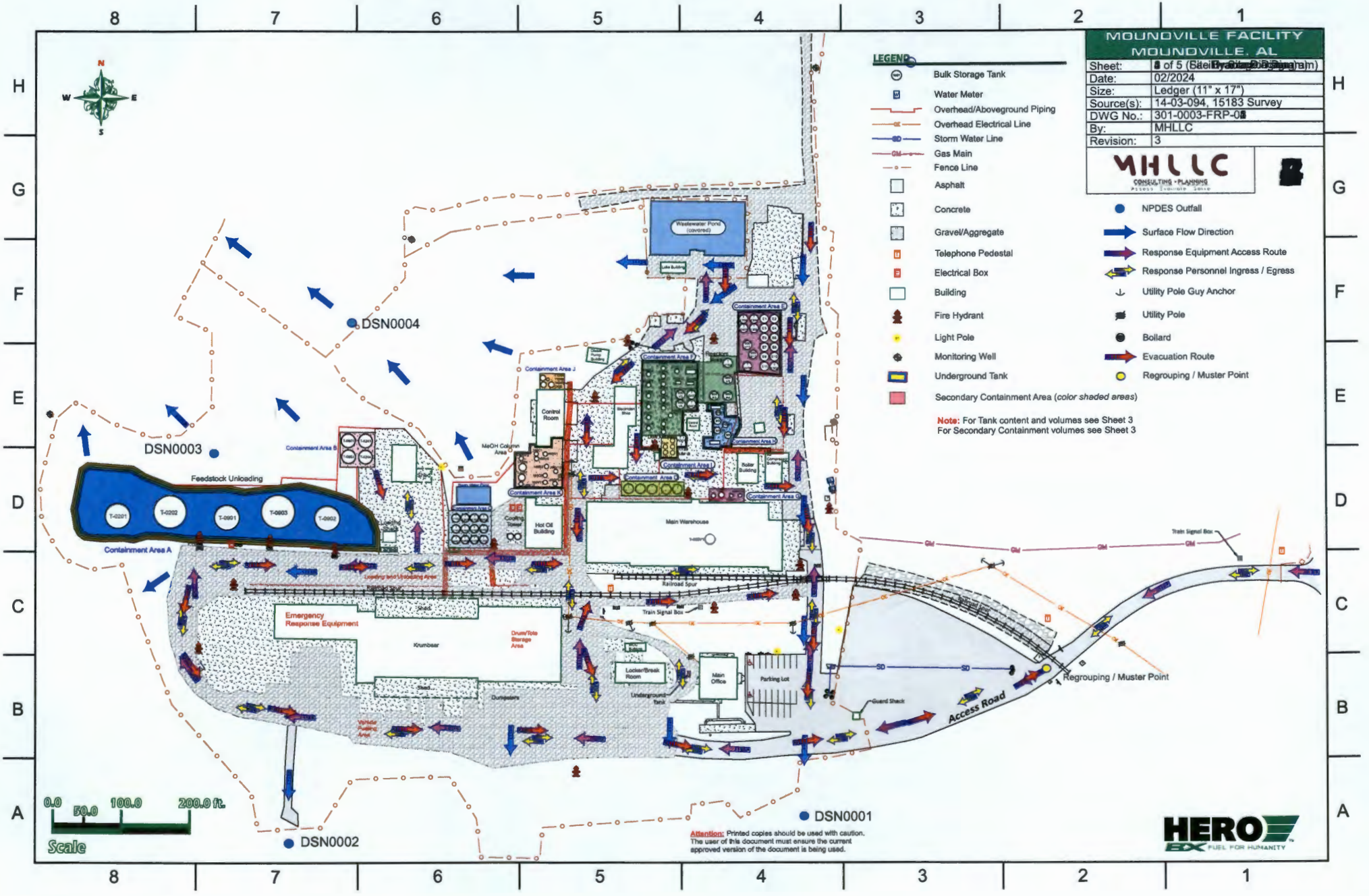
FIGURE 2. TOPOGRAPHIC LOCATION MAP

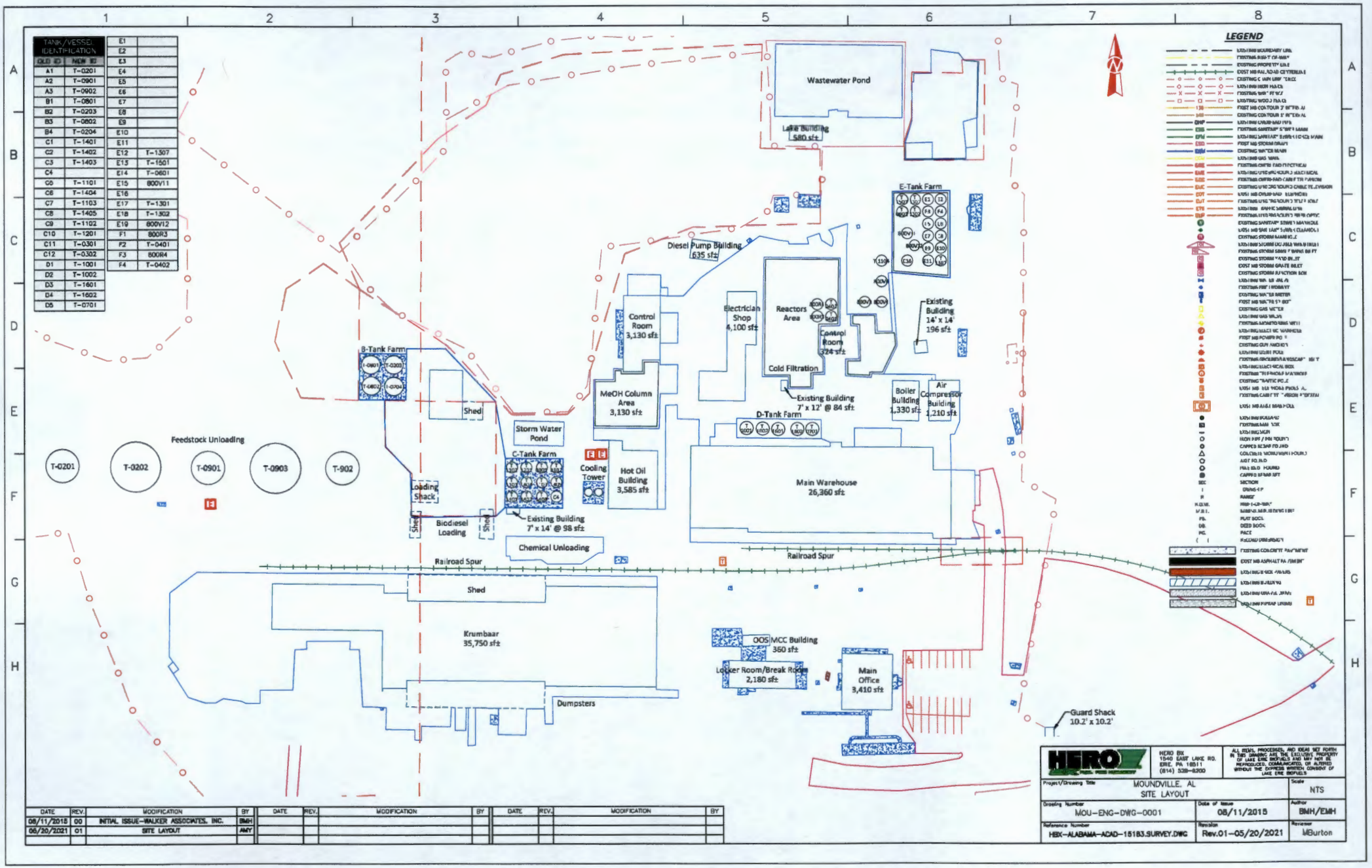
06-03-123 ABD NPDES
Tuscaloosa County, Alabama

Longleaf Engineering, LLC
CIVIL · GEOTECHNICAL · ENVIRONMENTAL
SURVEYING · MATERIALS TESTING

608 41st Street
Tuscaloosa, Alabama 35405
Phone (205) 345-5646
Fax (205) 345-5677

Date:	Drawn By:
08/06/2007	SPT
Scale:	Sheet #:
1" = 2000'	1 of 1

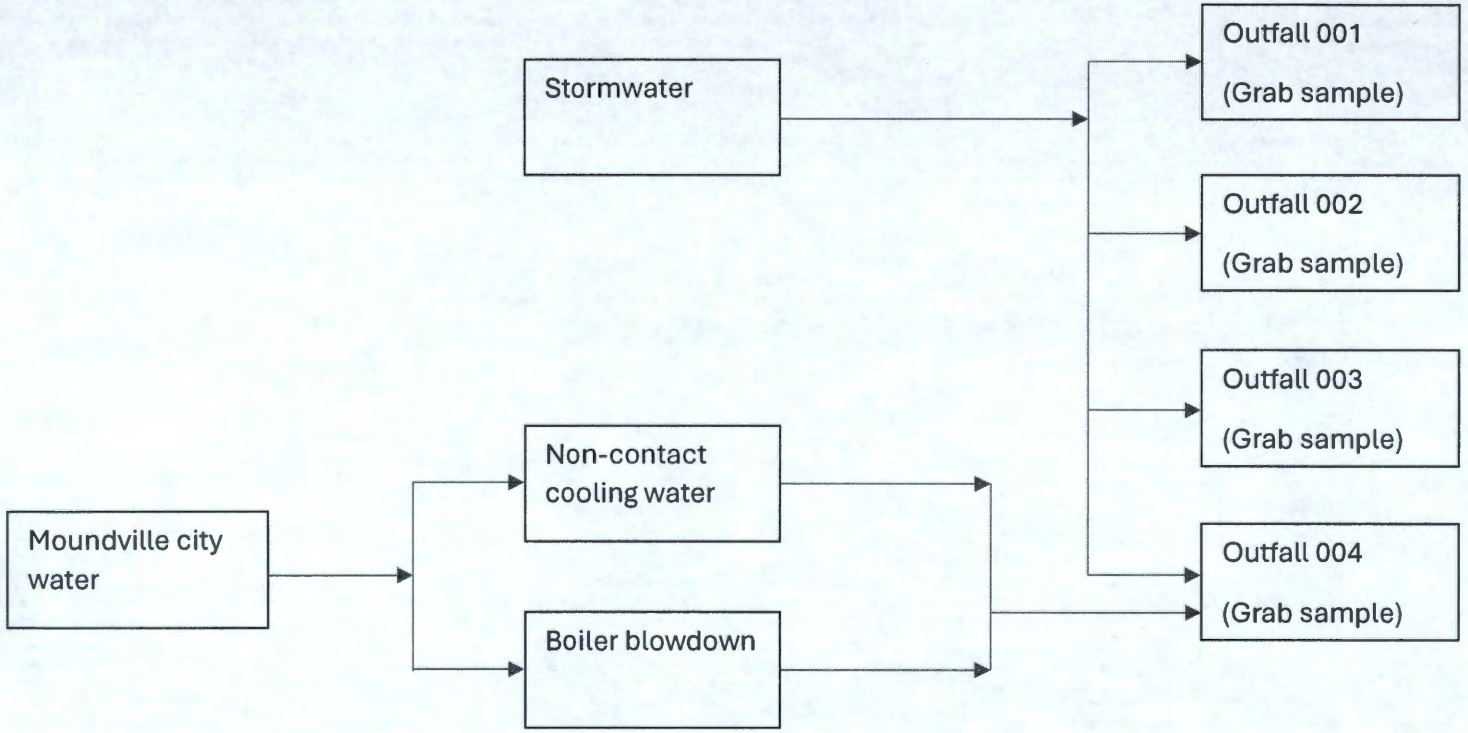

MOUNDVILLE FACILITY
MOUNDVILLE, AL
Sheet: [illegible] of 5 ([illegible])
Date: 02/2024
Size: Ledger (11" x 17")
Source(s): 14-03-094, 15183 Survey
DWG No.: 301-0003-FRP-0[illegible]
By: MHLLC
Revision: 3
MHLLC
CONSULTING • PLANNING
LEGEND
Bulk Storage Tank
Water Meter
Overhead/Aboveground Piping
Overhead Electrical Line
Storm Water Line
Gas Main
Fence Line
Asphalt
Concrete
Gravel/Aggregate
Telephone Pedestal
Electrical Box
Building
Fire Hydrant
Light Pole
Monitoring Well
Underground Tank
Secondary Containment Area (color shaded areas)
Note: For Tank content and volumes see Sheet 3
For Secondary Containment volumes see Sheet 3
NPDES Outfall
Surface Flow Direction
Response Equipment Access Route
Response Personnel Ingress / Egress
Utility Pole Guy Anchor
Utility Pole
Bollard
Evacuation Route
Regrouping / Muster Point
DSN0001
DSN0002
DSN0003
DSN0004
Feedstock Unloading
T-0201
T-0202
T-0901
T-0903
T-0902
Containment Area A
Wastewater Pond (covered)
Lab Building
Containment Area B
Containment Area J
Containment Area F
Control Room
Containment Area K
MeOH Column Area
Containment Area I
Containment Area H
Roller Building
Containment Area G
Containment Area E
Cooling Tower
Hot Oil Building
Main Warehouse
Railroad Spur
Train Signal Box
Emergency Response Equipment
Krumbear
Drum/Tote Storage Area
Shed
Dumpsters
Locker/Break Room
Main Office
Underground Tank
Parking Lot
Guard Shack
Access Road
Regrouping / Muster Point
0.0
50.0
100.0
200.0 ft.
Scale
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used.
HERO BX
FUEL FOR HUMANITY


TANK/VESSEL IDENTIFICATION
OLD ID | NEW ID
A1 T-0201
A2 T-0901
A3 T-0902
B1 T-0801
B2 T-0203
B3 T-0802
B4 T-0204
C1 T-1401
C2 T-1402
C3 T-1403
C4
C5 T-1101
C6 T-1404
C7 T-1103
C8 T-1405
C9 T-1102
C10 T-1201
C11 T-0301
C12 T-0302
D1 T-1001
D2 T-1002
D3 T-1601
D4 T-1602
D5 T-0701
E1
E2
E3
E4
E5
E6
E7
E8
E9
E10
E11
E12 T-1307
E13 T-1501
E14 T-0601
E15 800V11
E16
E17 T-1301
E18 T-1302
E19 800V12
F1 800R3
F2 T-0401
F3 800R4
F4 T-0402
LEGEND
Wastewater Pond
Lake Building 580 sf±
E-Tank Farm
Diesel Pump Building 635 sf±
Electrician Shop 4,100 sf±
Reactors Area
Control Room 324 sf±
Existing Building 14' x 14' 196 sf±
Control Room 3,130 sf±
Cold Filtration
MeOH Column Area 3,130 sf±
Existing Building 7' x 12' @ 84 sf±
Boiler Building 1,330 sf±
Air Compressor Building 1,210 sf±
B-Tank Farm
D-Tank Farm
Shed
Storm Water Pond
C-Tank Farm
Cooling Tower
Hot Oil Building 3,585 sf±
Main Warehouse 26,360 sf±
Feedstock Unloading
T-0201
T-0202
T-0901
T-0903
T-902
Loading Shack
Biodiesel Loading
Shed
Shed
Existing Building 7' x 14' @ 98 sf±
Chemical Unloading
Railroad Spur
Railroad Spur
Shed
Krumbaar 35,750 sf±
OOS/MCC Building 350 sf±
Locker Room/Break Room 2,180 sf±
Main Office 3,410 sf±
Dumpsters
Guard Shack 10.2' x 10.2'
HERO BX
1540 EAST LAKE RD.
ERIE, PA 16511
(814) 528-8000
ALL IDEAS, PROCESSES, AND IDEAS SET FORTH IN THIS DRAWING ARE THE EXCLUSIVE PROPERTY OF LAKE ERIE BIOFUELS AND MAY NOT BE REPRODUCED, COMMUNICATED, OR ALTERED WITHOUT THE EXPRESS WRITTEN CONSENT OF LAKE ERIE BIOFUELS
Project/Drawing Title: MOUNDVILLE, AL SITE LAYOUT
Scale: NTS
Drawing Number: MOU-ENG-DWG-0001
Date of Issue: 08/11/2015
Author: BMH/EMH
Reference Number: HBX-ALABAMA-ACAD-15183.SURVEY.DWG
Revision: Rev.01-05/20/2021
Reviewer: MBurton
DATE | REV. | MODIFICATION | BY
08/11/2015 | 00 | INITIAL ISSUE-WALKER ASSOCIATES, INC. | BMH
06/20/2021 | 01 | SITE LAYOUT | AMY

Hero BX Alabama

12982 Cherokee Bend Dr.

Moundville, AL 35474



Updated 1/27/2025

Delegation of Signatory Authority

Directions for Use:

1. This document may be used by a Responsible Official (as defined in 335-6-6-.09(1) or 335-6-5-.14(1)) to delegate signatory authority to an individual or position within an organization that has/have responsibility for the overall operation of the regulated facility or activity pursuant to the following regulations:

335-6-6-.09(2) [NPDES Permits]/335-6-5-.14(2) [State Indirect Discharge (SID) Permits]
All reports required by permits and other information requested by the Department shall be signed by a person described under paragraph 335-6-6-.09(1)/335-6-5-.14(1) or by a duly authorized representative of that person. **A person is a duly authorized representative only if:** (a) The authorization is made in writing by a person described in paragraph 335-6-6-.09(1)/335-6-5-.14(1); (b) The authorization specifies either an individual or a position **having responsibility for the overall operation of the regulated facility or activity** and; (c) The written authorization is submitted to the Department.

2. To sign this form as a Responsible Official, the person must be at a level of Vice President or higher, a Managing Member, a Partner, an Owner, or a Ranking Elected Official for the company/entity holding the permit or its parent company.
3. All information requested must be provided.

A. Responsible Official (i.e. person delegating signatory rights):

Name	Title/Position	Company/Organization	Phone	Email
Christopher Peterson	President	Hero BX	814-528-9209	cpeterson@herobx.com

B. Duly Authorized Representative (i.e. individual(s) or position (s) being delegated signatory authority):

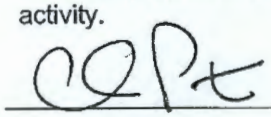
Name	Title/Position	Company/Organization	Phone	Email
John Feighner	Safety & Environmental Manager	Hero BX	814-528-9238	jfeighner@herobx.com

C. NPDES or SID Permit Number(s) for which the delegation will apply (Note: if permit not issued yet, site name and location will suffice):

AL0026921

D. Certification:

I, the abovenamed Responsible Official, delegate the individual(s)/position(s) named above the authority to sign reports, notifications, and other information on my behalf for the permit(s)/site(s) listed above and certify that the individual(s)/position(s) named above has/have responsibility for the overall operation of the regulated facility or activity.



9/24/24

Responsible Official's Signature **Date Signed**

Note: If an individual or position listed above does NOT have responsibility for the overall operation of the regulated facility or activity, the delegation for that individual or position will NOT be honored by the Department. In addition, if the person signing this delegation does not meet the definition of Responsible Official in 335-6-6-.09(1) or 335-6-5-.14(1), this delegation will not be honored by the Department.

TRIPLE POINT
INDUSTRIES, LLC

NPDES Permit for HERO BX – Moundville, AL

ATTN: Mike Burton

Water Treatment Chemicals provided by Triple Point Industries, LLC

Section (I) DSN001 Questions

1. Name and general composition of the biocide or chemical.
2. 48-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach.
3. Quantities to be used.
4. Frequencies of use.
5. Proposed discharge concentrations.
6. EPA registration number if applicable.

All information provided is answered as numbered above on the subsequent pages below. Data for organisms that have not been experimentally determined is not listed.

Cooing Tower Treatment

Scale and Corrosion Inhibitor

1. **TP-1022T**
2. No measurable effect; LC-50/48-hour; *Pimephales promelas*

   No measurable effect; LC-50/48-hour; *Cerodaphnia dubia*
3. Intermittent, based on Concentration Ratio and Makeup Volume
4. Daily
5. 0.24 ppm
6. NA

Non-Oxidizing Biocide

1. **TPI-215 – 5-chloro-2-methyl-isothiazolin-3-one 1.11%, 2-methyl-4-isothiazolin-3-one 0.39%**
2. 0.16 mg whole material/L; EC-50/48-hour; *Pimephales promelas*

   0.3 mg whole material/L; EC-50/48-hour; *Cerodaphnia dubia*
3. 19 ounces/dosage
4. (2) days/Week
5. 0.04-0.08 ppm
6. EPA Reg. No. 1448-348-69967

Oxidizing Biocide

1. **TP-8125 – 12.5% Sodium Hypochlorite**
2. 1.408 mg whole material/L; LC-50/96-hour; *Pimephales promelas*

   34.59 – 47.13 mg whole material/L; LC-50/48-hour; *Cerodaphnia dubia*
3. 0.6 ppm/dosage
4. (3) days/Week
5. 0.00--0.1 ppm
6. EPA Reg. No. 8622-30-69470

Bio-Dispersant

1. **TP-1046**
2. No measurable effect; LC-50/48-hour; *Pimephales promelas*

   92.3 mg whole material/L; LC-50/48-hour; *Cerodaphnia dubia*
3. 10 ounces/dosage
4. (5) days/Week
5. 0.20–0.31 ppm
6. NA

Boiler Water Treatment

Sludge Conditioner

1. **TP-1480**
2. 400 mg whole material/L; LC-50/48-hour; *Pimephales promelas*

   400 mg whole material/L; LC-50/48-hour; *Cerodaphnia dubia*
3. 35.8 ounces/day
4. Daily
5. 52 ppm
6. NA

Oxygen Scavenger

1. **TP-1030**
2. 600 mg whole material/L; LC-50/48-hour; *Pimephales promelas*

   600 mg whole material/L; LC-50/48-hour; *Cerodaphnia dubia*
3. 20.5 ounces/day
4. Daily
5. 21 ppm
6. NA

Steam Line Treatment

1. **TP-1540**
2. 424.3 mg whole material/L; LC-50/48-hour; *Pimephales promelas*

   289.8 mg whole material/L; LC-50/48-hour; *Cerodaphnia dubia*
3. Intermittent, based on Concentration Ratio and Makeup Volume
4. 46.1 ounces/day
5. 84 ppm
6. NA

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALD004034138	AL0026921	Hero BX - Alabama	

Form 1 NPDES

EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

GENERAL INFORMATION

SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1))

Activities Requiring an NPDES Permit

1.1 Applicants *Not Required* to Submit Form 1

1.1.1	Is the facility a new or existing **publicly owned treatment works**? If yes, STOP. Do NOT complete Form 1. Complete Form 2A. ☑ No	1.1.2	Is the facility a new or existing **treatment works treating domestic sewage**? If yes, STOP. Do NOT complete Form 1. Complete Form 2S. ☑ No

1.2 Applicants *Required* to Submit Form 1

1.2.1	Is the facility a **concentrated animal feeding operation** or a **concentrated aquatic animal production facility**? ☐ Yes → Complete Form 1 ***and*** Form 2B. ☑ No	1.2.2	Is the facility an **existing** manufacturing, commercial, mining, or silvicultural **facility** that **is currently discharging process wastewater**? ☐ Yes → Complete Form 1 ***and*** Form 2C. ☑ No
1.2.3	Is the facility a **new** manufacturing, commercial, mining, or silvicultural **facility** that has **not yet commenced to discharge**? ☐ Yes → Complete Form 1 ***and*** Form 2D. ☑ No	1.2.4	Is the facility a **new or existing** manufacturing, commercial, mining, or silvicultural **facility** that **discharges only nonprocess wastewater**? ☑ Yes → Complete Form 1 ***and*** Form 2E. ☐ No
1.2.5	Is the facility a **new or existing facility** whose discharge is composed entirely of **stormwater associated with industrial activity** or whose discharge is composed of **both stormwater and non-stormwater**? ☑ Yes → Complete Form 1 ***and*** Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). ☐ No		

SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2))

Name, Mailing Address, and Location

2.1 Facility Name

Hero BX - Alabama

2.2 EPA Identification Number

ALD004034138

2.3 Facility Contact

Name (first and last)	Title	Phone number
John Feighner	Safety & Environmental Manager	(814) 528-9238

Email address
jfeighner@herobx.com

2.4 Facility Mailing Address

Street or P.O. box
1540 East Lake Road

City or town	State	ZIP code
Erie	PA	16511

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALD004034138	AL0026921	Hero BX - Alabama	

Name, Mailing Address, and Location Continued

2.5 Facility Location

Street, route number, or other specific identifier		
12982 Cherokee Bend Drive		
County name	**County code (if known)**	
Tuscaloosa		
City or town	**State**	**ZIP code**
Moundville	AL	35474

SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3))

SIC and NAICS Codes

3.1	SIC Code(s)	Description (optional)
	2869	

3.2	NAICS Code(s)	Description (optional)
	325199	

SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4))

Operator Information

4.1 Name of Operator

Hero BX Alabama

4.2 Is the name you listed in Item 4.1 also the owner?

☐ Yes ☑ No

4.3 Operator Status

☐ Public—federal ☐ Public—state ☐ Other public (specify)_____

☑ Private ☐ Other (specify) _____

4.4 Phone Number of Operator

(814) 528-9209

Operator Information Continued

4.5 Operator Address

Street or P.O. Box		
1540 East Lake Road		
City or town	**State**	**ZIP code**
Erie	PA	16511

Email address of operator

cpeterson@herobx.com

SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5))

Indian Land

5.1 Is the facility located on Indian Land?

☐ Yes ☑ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALD004034138	AL0026921	Hero BX - Alabama	

SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))

Existing Environmental Permits

6.1 **Existing Environmental Permits** (check all that apply and print or type the corresponding permit number for each)

☑ NPDES (discharges to surface water) AL0026921	☑ RCRA (hazardous wastes) ALD004034138	☐ UIC (underground injection of fluids)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)

SECTION 7. MAP (40 CFR 122.21(f)(7))

Map

7.1 Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)

☑ Yes ☐ No ☐ CAFO—Not Applicable (See requirements in Form 2B.)

SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))

Nature of Business

8.1 Describe the nature of your business.

Hero BX produces biodiesel fuel. Feedstock oils (used cooking oil, rendered animal fats, soybean oil) are pretreated by means of acid esterification and converted to biodiesel through transesterification. Glycerin is a by-product of biodiesel production.

SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))

Cooling Water Intake Structures

9.1 Does your facility use cooling water?

☑ Yes ☐ No → SKIP to Item 10.1.

9.2 Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.)

Cooling water is supplied by the city water supply.

SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))

Variance Requests

10.1 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

- ☐ Fundamentally different factors (CWA Section 301(n))
- ☐ Water quality related effluent limitations (CWA Section 302(b)(2))
- ☐ Non-conventional pollutants (CWA Section 301(c) and (g))
- ☐ Thermal discharges (CWA Section 316(a))
- ☑ Not applicable

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALD004034138	AL0026921	Hero BX - Alabama	

SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

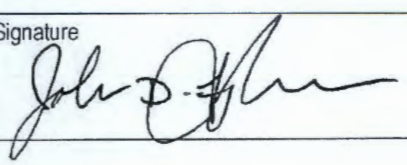
Checklist and Certification Statement

11.1 In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2
☑ Section 1: Activities Requiring an NPDES Permit	☐ w/ attachments
☑ Section 2: Name, Mailing Address, and Location	☐ w/ attachments
☑ Section 3: SIC Codes	☐ w/ attachments
☑ Section 4: Operator Information	☐ w/ attachments
☑ Section 5: Indian Land	☐ w/ attachments
☑ Section 6: Existing Environmental Permits	☐ w/ attachments
☑ Section 7: Map	☑ w/ topographic map ☐ w/ additional attachments
☑ Section 8: Nature of Business	☐ w/ attachments
☑ Section 9: Cooling Water Intake Structures	☐ w/ attachments
☑ Section 10: Variance Requests	☐ w/ attachments
☑ Section 11: Checklist and Certification Statement	☐ w/ attachments

11.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
John Feighner	Safety & Environmental Manager
Signature 	Date signed 2/26/25

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
ALD004034138	AL0026921	Hero BX Alabama	

FORM 2E NPDES

EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL FACILITIES WHICH DISCHARGE ONLY NONPROCESS WASTEWATER

SECTION 1. OUTFALL LOCATION (40 CFR 122.21(h)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below.

Outfall Number	Receiving Water Name	Latitude	Longitude
04A	Carthage Branch	33.01° ' " N	-87.6° ' "
		° ' " N	° ' " W
		° ' "	° ' "

SECTION 2. DISCHARGE DATE (40 CFR 122.21(h)(2))

Discharge Date

2.1 Are you a new or existing discharger? (Check only one response.)

☐ New discharger ☑ Existing discharger → SKIP to Section 3.

2.2 Specify your anticipated discharge date:

SECTION 3. WASTE TYPES (40 CFR 122.21(h)(3))

Waste Types

3.1 What types of wastes are currently being discharged if you are an existing discharger or will be discharged if you are a new discharger? (Check all that apply.)

☐ Sanitary wastes
☐ Restaurant or cafeteria waste
☑ Non-contact cooling water
☑ Other nonprocess wastewater (describe/explain directly below)

Boiler blowdown

3.2 Does the facility use cooling water additives?

☑ Yes ☐ No → SKIP to Section 4.

3.3 List the cooling water additives used and describe their composition.

Cooling Water Additives (list)	Composition of Additives (if available to you)
1) Scale and Corrosion Inhibitor (TP-1022T) 2) Non-oxidizing biocide (TPI-215)	1) Sodium Molybdate (1-5%), Potassium Hydroxide (< 1%) 2) Magnesium Nitrate (1.856 - 2.436%), 5-Chloro-2-methy

SECTION 4. EFFLUENT CHARACTERISTICS (40 CFR 122.21(h)(4))

Effluent Characteristics

4.1 Have you completed monitoring for all parameters in the table below at each of your outfalls and attached the results to this application package?

☑ Yes ☐ No; a waiver has been requested from my NPDES permitting authority (attach waiver request and additional information) → SKIP to Section 5.

4.2 Provide data as requested in the table below.[1] (See instructions for specifics.)

Parameter or Pollutant	Number of Analyses (if actual data reported)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Source (use codes per instructions)
		Mass	Conc.	Mass	Conc.	
Biochemical oxygen demand (BOD_5)	See attached report					
Total suspended solids (TSS)	See attached report					
Oil and grease	See attached report					
Ammonia (as N)	See attached report					
Discharge flow	See attached report					
pH (report as range)	See attached report					
Temperature (winter)		50-60 degrees F				4
Temperature (summer)		75-80 degrees F				4

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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Effluent Characteristics Continued

4.3 Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)?

☐ Yes ☑ No → SKIP to Item 4.5.

4.4 Provide data as requested in the table below.[1] (See instructions for specifics.)

Parameter or Pollutant	Number of Analyses (if actual data reported)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Source (Use codes per Instructions.)
		Mass	Conc.	Mass	Conc.	
Fecal coliform						
E. coli						
Enterococci						

4.5 Is chlorine used (or will it be used)?

☐ Yes ☑ No → SKIP to Item 4.7.

4.6 Provide data as requested in the table below.[1] (See instructions for specifics.)

Parameter or Pollutant	Number of Analyses (if actual data reported)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Source (use codes per instructions)
		Mass	Conc.	Mass	Conc.	
Total Residual Chlorine						

4.7 Is non-contact cooling water discharged (or will it be discharged)?

☑ Yes ☐ No → SKIP to Section 5.

4.8 Provide data as requested in the table below.[1] (See instructions for specifics.)

Parameter or Pollutant	Number of Analyses (if actual data reported)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Source (use codes per instructions)
		Mass	Conc.	Mass	Conc.	
Chemical oxygen demand (COD)	See attached report					
Total organic carbon (TOC)	See attached report					

SECTION 5. FLOW (40 CFR 122.21(h)(5))

Flow

5.1 Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal?

☑ Yes → Complete this section. ☐ No → SKIP to Section 6.

5.2 Briefly describe the frequency and duration of flow.

There are two discharges of concern, boiler blowdown and cooling tower blowdown. Boiler blowdown typically occurs once per day and lasts less than one minute. Cooling tower blowdown typically occurs around ten times per day and lasts around five minutes per event.

SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))

Treatment System

6.1 Briefly describe any treatment system(s) used (or to be used).

The only means of treatment is a physical decant system. The sump in the center of the plant collects water from a large portion of the site. Water is is held here until plant personnel turn on a pump and discharge the water. Any oil collected in the sump is removed before discharge with either sorbent pads, pumped off, or vacuumed with a vac truck and disposed of accordingly.

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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SECTION 7. OTHER INFORMATION (40 CFR 122.21(h)(7))

Other Information

7.1 Use the space below to expand upon any of the above items. Use this space to provide any information you believe the reviewer should consider in establishing permit limitations. Attach additional sheets as needed.

SECTION 8. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

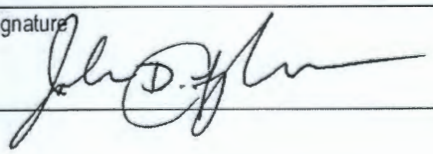
Checklist and Certification Statement

8.1 In Column 1 below, mark the sections of Form 2E that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2
☑ Section 1: Outfall Location	☐ w/ attachments (e.g., responses for additional outfalls)
☑ Section 2: Discharge Date	☐ w/ attachments
☑ Section 3: Waste Types	☐ w/ attachments
☑ Section 4: Effluent Characteristics	☑ w/ attachments
☑ Section 5: Flow	☐ w/ attachments
☑ Section 6: Treatment System	☐ w/ attachments
☑ Section 7: Other Information	☐ w/ attachments
☑ Section 8: Checklist and Certification Statement	☐ w/ attachments

8.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
John Feighner	Safety & Environmental Manager
Signature: 	Date signed: 2/26/25

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Form 2F NPDES

EPA

U.S Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

SECTION 1. OUTFALL LOCATION (40 CFR 122.21(G)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below

Outfall Number	Receiving Water Name	Latitude	Longitude
001	Carthage Branch	33.00888900000000	-87.62416700000000
002	Carthage Branch	33.00861100000000	-87.62666700000000
003	Carthage Branch	33.01000000000000	-87.62722200000000
004	Carthage Branch	33.01055600000000	-87.62638900000000

SECTION 2. IMPROVEMENTS (40 CFR 122.21(G)(6))

Improvements

2.1 Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application?

☐ Yes ☑ No → SKIP to Section 3.

2.2 Briefly identify each applicable project in the table below.

Brief Identification and Description of Project	Affected Outfalls (list outfall numbers)	Source(s) of Discharge	Final Compliance Dates	
			Required	Projected

2.3 Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? *(optional item)*

☐ Yes ☑ No

SECTION 3. SITE DRAINAGE MAP (40 CFR 122.26(C)(1)(I)(A))

Site Drainage Map

3.1 Have you attached a site drainage map containing all required information to this application? (See instructions for specific guidance.)

☑ Yes

SECTION 4. POLLUTANT SOURCES (40 CFR 122.26(C)(1)(I)(B))

Pollutant Sources

4.1 Provide information on the facility's pollutant sources in the table below.

Outfall Number	Impervious Surface Area (within a mile radius of the facility)		Total Surface Area Drained (within a mile radius of the facility)	
001	1.0	*specify units* acres	2.45	*specify units* acres
002	1.5	*specify units* acres	4.85	*specify units* acres
003	0.15	*specify units* acres	1.3	*specify units* acres
004	4.4	*specify units* acres	8.75	*specify units* acres
		specify units		*specify units*
		specify units		*specify units*

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)

Bulk materials stored at the facility include the following: vegetable oil, methanol, MSA, biodiesel, glycerin, phosphoric acid, sulfuric acid, citric acid, sodium methylate, sodium hydroxide, and cooling tower/boiler additives. Vegetable oil, biodiesel, methanol, and glycerin are stored in above ground storage tanks. All above ground tanks at the site are kept in secondary containment. Secondary containments are only drained after inspection & removal of sheen. The remaining materials are stored in various warehouse spaces and are not allowed to come into contact with stormwater. Stormwater does not come into contact with bulk raw materials or finished product. Some contact with residual materials (small spills/leaks) may occur inadvertently. However, such occurrences will generally occur in containment areas. At this time, the facility is not using pesticides, herbicides, soil conditioners, or fertilizers.

4.3 Provide the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff. (See instructions for specific guidance.)

Stormwater Treatment		
Outfall Number	Control Measures and Treatment	Codes from Exhibit 2F–1 (list)
001	SPCC/BMP inspection, training, housekeeping, material coverage.	NA
002	SPCC/BMP inspection, training, housekeeping, containment dikes, material coverage.	NA
003	SPCC/BMP inspection, training, housekeeping, containment dikes, material coverage.	NA
004	SPCC/BMP inspection, training, housekeeping, containment dikes, material coverage...	NA
004 cont.	Physical separation of oil in a containment pond.	

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SECTION 5. NON STORMWATER DISCHARGES (40 CFR 122.26(C)(1)(I)(C))

Non-Stormwater Discharges

5.1 Provide the following certification. (See instructions to determine the appropriate person to sign the application.)

I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges. Moreover, I certify that the outfalls identified as having non-stormwater discharges are described in either an accompanying NPDES Form 2C, 2D, or 2E application.

Name (print or type first and last name)	Official title
John Feighner	Safety & Environmental Manager
Signature	**Date signed**

5.2 Provide the testing information requested in the table below.

Outfall Number	Description of Testing Method Used	Date(s) of Testing	Onsite Drainage Points Directly Observed During Test
001	See attached analytical results and test methods.	01/27/2025	
002	See attached analytical results and test methods.	01/27/2025	
003	See attached analytical results and test methods.	01/27/2025	
004	See attached analytical results and test methods.	01/27/2025	

SECTION 6. SIGNIFICANT LEAKS OR SPILLS (40 CFR 122.26(C)(1)(I)(D))

Significant Leaks or Spills

6.1 Describe any significant leaks or spills of toxic or hazardous pollutants in the last three years.

None

SECTION 7. DISCHARGE INFORMATION (40 CFR 122.26(C)(1)(I)(E))

Discharge Information

See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.

7.1 Is this a new source or new discharge?

☐ Yes ➔ See instructions regarding submission of *estimated* data.

☑ No ➔ See instructions regarding submission of *actual* data.

Tables A, B, C, and D

7.2 Have you completed Table A for each outfall?

☐ Yes

Discharge Information Continued

7.3	Is the facility subject to an effluent limitation guideline (ELG) or effluent limitations in an NPDES permit for its process wastewater? ☐ Yes ☑ No → SKIP to Item 7.5.
7.4	Have you completed Table B by providing quantitative data for those pollutants that are (1) limited either directly or indirectly in an ELG and/or (2) subject to effluent limitations in an NPDES permit for the facility's process wastewater? ☐ Yes
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge? ☐ Yes ☑ No → SKIP to Item 7.7.
7.6	Have you listed all pollutants in Exhibit 2F–2 that you know or have reason to believe are present in the discharge and provided quantitative data or an explanation for those pollutants in Table C? ☐ Yes
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes → SKIP to Item 7.18. ☑ No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge? ☐ Yes ☑ No → SKIP to Item 7.10.
7.9	Have you listed all pollutants in Exhibit 2F–3 that you know or have reason to believe are present in the discharge in Table C? ☐ Yes
7.10	Do you expect any of the pollutants in Exhibit 2F–3 to be discharged in concentrations of 10 ppb or greater? ☐ Yes ☑ No → SKIP to Item 7.12.
7.11	Have you provided quantitative data in Table C for those pollutants in Exhibit 2F–3 that you expect to be discharged in concentrations of 10 ppb or greater? ☐ Yes
7.12	Do you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater? ☐ Yes ☑ No → SKIP to Item 7.14.
7.13	Have you provided quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater? ☐ Yes
7.14	Have you provided quantitative data or an explanation in Table C for pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the pollutants identified in Item 7.12)? ☐ Yes
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge? ☐ Yes ☑ No → SKIP to Item 7.17.

Discharge Information Continued

7.16 Have you listed pollutants in Exhibit 2F–4 that you know or believe to be present in the discharge and provided an explanation in Table C?

☐ Yes

7.17 Have you provided information for the storm event(s) sampled in Table D?

☐ Yes

Used or Manufactured Toxics

7.18 Is any pollutant listed on Exhibits 2F–2 through 2F–4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct?

☐ Yes ☑ No → SKIP to Section 8.

7.19 List the pollutants below, including TCDD if applicable. Attach additional sheets, if necessary.

1.	4.	7.
2.	5.	8.
3.	6.	9.

SECTION 8. BIOLOGICAL TOXICITY TESTING DATA (40 CFR 122.21(G)(11))

Biological Toxicity Testing Data

8.1 Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last three years?

☐ Yes ☑ No → SKIP to Section 9.

8.2 Identify the tests and their purposes below.

Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?	Date Submitted
		☐ Yes ☐ No	
		☐ Yes ☐ No	
		☐ Yes ☐ No	

SECTION 9. CONTRACT ANALYSIS INFORMATION (40 CFR 122.21(G)(12))

Contract Analysis Information

9.1 Were any of the analyses reported in Section 7 (in Tables A through C) performed by a contract laboratory or consulting firm?

☑ Yes ☐ No → SKIP to Section 10.

9.2 Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm	Pace Analytical		
Laboratory address	1168 Whigham Place Tuscaloosa, AL 35405		
Phone number	(205) 614-6630		
Pollutant(s) analyzed			

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SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(A) AND (D))

Checklist and Certification Statement

10.1 In Column 1 below, mark the sections of Form 2F that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.

Column 1	Column 2
☑ Section 1	☐ w/ attachments (e.g., responses for additional outfalls)
☑ Section 2	☐ w/ attachments
☑ Section 3	☑ w/ site drainage map
☑ Section 4	☐ w/ attachments
☑ Section 5	☐ w/ attachments
☑ Section 6	☐ w/ attachments
☑ Section 7	☑ Table A ☐ w/ small business exemption request ☑ Table B ☑ w/ analytical results as an attachment ☑ Table C ☑ Table D
☑ Section 8	☐ w/ attachments
☑ Section 9	☐ w/ attachments (e.g., responses for additional contact laboratories or firms)
☑ Section 10	

10.2 Provide the following certification. (See instructions to determine the appropriate person to sign the application.)

Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
John Feighner	Safety & Environmental Manager
Signature: John D. Feighner	Date signed: 2/26/25

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TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(C)(1)(I)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	< 5.0 mg/L				1	
2.	Biochemical oxygen demand (BOD_5)	1.19 mg/L				1	
3.	Chemical oxygen demand (COD)	12.0 mg/L				1	
4.	Total suspended solids (TSS)	13.9 mg/L				1	
5.	Total phosphorus	0.25 mg/L				1	
6.	Total Kjeldahl nitrogen (TKN)	0.87 mg/L				1	
7.	Total nitrogen (as N)	1.1 mg/L				1	
8.	pH (minimum)	7.4				1	
	pH (maximum)	7.4				1	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

* Samples were collected as soon as practicable after the storm event.

* Only grab samples were collected.

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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (If available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Oil & Grease	< 5.0 mg/L				1	
Phosphorous	0.25 mg/L				1	
Iron	369 ug/L				1	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(B) AND (VII))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
None						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(C)(1)(I)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
1/26/25 11pm - 4am	5 hrs	0.24 in	72+ hrs	NA	9,725 gal

Provide a description of the method of flow measurement or estimate.

Calculated by area of discharge and rainfall amount.

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TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(C)(1)(I)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	< 5.1 mg/L				1	
2.	Biochemical oxygen demand (BOD_5)	1.48 mg/L				1	
3.	Chemical oxygen demand (COD)	11.0 mg/L				1	
4.	Total suspended solids (TSS)	13.4 mg/L				1	
5.	Total phosphorus	1.2 mg/L				1	
6.	Total Kjeldahl nitrogen (TKN)	0.82 mg/L				1	
7.	Total nitrogen (as N)	1.2 mg/L				1	
8.	pH (minimum)	7.2				1	
	pH (maximum)	7.2				1	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

* Samples were collected as soon as practicable after the storm event.

* Only grab samples were collected.

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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Oil & Grease	< 5.1 mg/L				1	
Phosphoraus	1.2 mg/L				1	
Iron	685 ug/L				1	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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Expires 07/31/2026

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(B) AND (VII))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
None						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	002

OMB No. 2040-0004
Expires 07/31/2026

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(C)(1)(I)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
1/26/25 11pm - 4am	5 hrs	0.26	72+ hrs	NA	3,242 gal

Provide a description of the method of flow measurement or estimate.

Calculated by area of discharge and rainfall amount.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	003

OMB No. 2040-0004
Expires 07/31/2026

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(C)(1)(I)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	< 5.1 mg/L				1	
2.	Biochemical oxygen demand (BOD_5)	1.33 mg/L				1	
3.	Chemical oxygen demand (COD)	30.0 mg/L				1	
4.	Total suspended solids (TSS)	10.8 mg/L				1	
5.	Total phosphorus	0.24 mg/L				1	
6.	Total Kjeldahl nitrogen (TKN)	0.51 mg/L				1	
7.	Total nitrogen (as N)	0.63 mg/L				1	
8.	pH (minimum)	7.4				1	
	pH (maximum)	7.4				1	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

* Samples were collected as soon as practicable after the storm event.

* Only grab samples were collected.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	003

OMB No. 2040-0004
Expires 07/31/2026

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Oil & Grease	<5.1 mg/L					
Phosphorous	0.24 mg/L					
Iron	394 ug/L					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	003

OMB No. 2040-0004
Expires 07/31/2026

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(B) AND (VII))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
None						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	003

OMB No. 2040-0004
Expires 07/31/2026

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(C)(1)(I)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
1/26/25 11pm – 4am	5 hrs	0.26 in	72+ hrs	NA	9,725 gal

Provide a description of the method of flow measurement or estimate.

Calculated by area of discharge and rainfall amount.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	004

OMB No. 2040-0004
Expires 07/31/2026

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(C)(1)(I)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	<5.0 mg/L					
2.	Biochemical oxygen demand (BOD_5)	1.47 mg/L					
3.	Chemical oxygen demand (COD)	17.0 mg/L					
4.	Total suspended solids (TSS)	13.3 mg/L					
5.	Total phosphorus	0.22 mg/L					
6.	Total Kjeldahl nitrogen (TKN)	0.35 mg/L					
7.	Total nitrogen (as N)	0.50 mg/L					
8.	pH (minimum)	7.29					
	pH (maximum)	7.29					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	004

OMB No. 2040-0004
Expires 07/31/2026

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Oil & Grease	< 5.0 mg/L					
Phosphorous	0.22 mg/L					
Iron	304 ug/L					

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	004

OMB No. 2040-0004
Expires 07/31/2026

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(C)(1)(I)(E)(4) AND 40 CFR 122.21(G)(7)(VI)(B) AND (VII))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
None						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
ALD004034138	AL0026921	Hero Bx - Alabama	004

OMB No. 2040-0004
Expires 07/31/2026

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(C)(1)(I)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
1/26/25 11pm - 4am	5 hrs	0.26 in	72+ hrs	NA	43,764 gal

Provide a description of the method of flow measurement or estimate.

Calculated by area of discharge and rainfall amount.

TRIPLE POINT INDUSTRIES, LLC

TP-1022

Safety Data Sheet

Section 1. Identification

Product Identifier:	TP-1022
Other Means of Identification:	None
Product Type:	COOLING WATER TREATMENT PRODUCT
Manufacturer Details:	
Company Name	Triple Point Industries, LLC
Address	PO Box 36423 Birmingham, AL 35236
Telephone	(205) 328-0808
Website	www.tpichemical.com
Email	
Emergency Telephone number:	**For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN794207 or +1 703-527-3887 (collect calls accepted)**

Section 2. Hazard(s) Identification

Physical Hazards	Not Classified
Health Hazards	Skin Corrosion/Irritation – Category 1 Serious eye damage/eye irritation – Category 1
Environmental Hazards	
OSHA defined Hazards	
Label Elements:	
Signal Word	DANGER
Hazard Statements	Causes severe skin burns and eye damage. Causes serious eye damage.
Precautionary Statements	
Prevention:	Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.
Storage:	Store locked up. Store away from incompatible materials.
Disposal:	Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3. Composition/Information on Ingredients

Substance/Mixture:
Other Means of Identification:

Ingredient Name	%	CAS number
Sodium Molybdate	1 – 5	10102-40-6
Potassium Hydroxide	< 1	1310-58-3

Section 4. First Aid Measures

Inhalation:	Move to fresh air. Call a physician if symptoms develop or persist.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Skin Contact:	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Ingestion:	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Note to Physician:	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Most important Symptoms/effects, Acute and delayed:	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of Immediate medical and special Treatment needed:	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
Suitable Extinguishing Media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2)

Section 5. Fire-Fighting Measures

Unsuitable Extinguishing Media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards arising from the Chemical:	During fire, gases hazardous to health may be formed.
Special Protective equipment:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire Fighting equipment:	Move containers from fire area if you can do so without risk.

Specific methods:	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards:	No unusual fire or explosion hazards noted.

Section 6. Accidental Release Measures

Personal Precaution, Protective Equipment and Emergency Procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and Materials for containment and Cleaning up:

Small Spill:	Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Large Spill:	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Section 7. Handling and Storage

Precautions for safe handling:	Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for sage storage, Including any incompatibilities:	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
Satisfactory Materials of Construction:	Not Available

Section 8. Exposure Controls/Personal Protection

Occupational exposure limits:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium molybdate (CAS 10102-40-6)	PEL	5 mg/m^3

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m^3	
Sodium molybdate (CAS 10102-40-6)	TWA	0.5 mg/m^3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	TWA	2 mg/m^3

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual Protection measures:

Eye/Face: Wear safety glasses with side shields (or goggles) and a face shield.

Skin: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing.

Respiratory: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal Hazards: Not Available.

General Hygiene Considerations (if any) : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash worn clothing and protective equipment to remove contaminants.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Form	Clear Liquid
Color	Yellow
Odor	Characteristic
Odor Threshold	Not Available
pH	11.5 – 12.4
Melting Point/Freezing Point	< 40 °F (< 4.4 °C) estimated
Initial boiling point	>212 °F (> 100 °C) estimated
Flash point	None
Evaporation Rate	Not Available
Flammability (Solid, Gas)	Not Applicable
Flammability limit- lower (%)	Not Available
Flammability limit- upper (%)	Not Available

Explosive limit- lower (%)	Not Available
Explosive limit- upper (%)	Not Available
Vapor pressure	< 1.0 mm Hg estimated
Vapor density	Not Available
Relative density	Not Available
Solubility (Water)	Complete
Partition coefficient (n-octanol/water)	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Specific gravity	1.05
Percent Volatile	> 70% estimated
Density	8.79 lgs/gal

Section 10. Stability and Reactivity

Reactivity:	Reacts violently with strong acids. This product may react with oxidizing agents.
Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Do not mix with other chemicals. Contact with incompatible materials.
Incompatible Materials:	Acids. Oxidizing agents.
Hazardous decomposition Materials:	No hazardous decomposition products are known.

Section 11. Toxicological Information

Information on likely routes of exposure

Inhalation:	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin Contact:	Causes severe skin burns.
Eye Contact:	Causes serious eye damage.
Ingestion:	Causes digestive tract burns.

Symptoms related to the Physical, chemical and Toxicological characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Toxicity Information:

Acute:	Not Available
Skin Irritation/Corrosion:	Causes severe skin burns and eye damage.
Eye Damage/irritation:	Causes serious eye damage

Sensitization

Respiratory sensitization:	Not a respiratory sensitizer.
Skin sensitization:	This product is not expected to cause skin sensitization.
Mutagency:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic
Carcinogenicity:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Reproductive Toxicity:	This product is not expected to cause reproductive or developmental effects.
Teratogenicity:	Not Available
Specific target organ toxicity (single exposure):	Not Classified
Specific target organ toxicity (repeated exposure):	Not Classified
Aspiration hazard:	Not an aspiration hazard.
Chronic effects:	Prolonged inhalation may be harmful.

Section 12. Ecological Information

Ecotoxicity:	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability:	No data is available on the degradability of this product.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13. Disposal Considerations

Disposal Methods:	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose in accordance with all applicable regulations.
Hazardous Waste Code:	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from Residues/ Unused products:	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging:	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transportation Information

	DOT Classification	IMDG	IATA
UN Number	UN3266	-	-
UN Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s. (Potassium Hydroxide)	-	-
Transport Hazard Class(es)	8 	-	-
Packing Group	III	-	-
Environmental Hazards	NA	-	-
Additional Information	NA	-	-

Special Precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Special provisions: IB3, T7, TP1, TP28

Packaging exceptions: 154

Packaging non bulk: 203

Packaging bulk: 241

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established
Not regulated as dangerous goods.

Section 15. Regulatory Information

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. One or more components are not listed on TSCA.

CERCLA Hazardous Substance List (40 CFR 302.4)

Potassium Hydroxide (CAS 1310-58-3) Listed

SARA 304 Emergency release notification:

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Not regulated

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories

Immediate hazard – Yes
Delayed hazard – No
Fire hazard – No
Reactivity hazard – No
Pressure hazard - No

SARA 302 Extremely hazardous substance:

Not listed

SARA 311/312 Hazardous chemical:

No

SARA 313 (TRI reporting):

Not regulated

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental release prevention (40 CFR 68.130):

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

US State regulations

US California Controlled Substances. Ca Department of Justice (California Health and Safety Code Section 11100):

Not listed

US. Massachusetts RTK- Substances List:

Potassium Hydroxide (CAS 1310-58-3)

US. New Jersey Worker and Community Right-to-Know Act

Potassium Hydroxide (CAS 1310-58-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Potassium Hydroxide (CAS 1310-58-3)

US. Rhode Island RTK

Potassium Hydroxide (CAS 1310-58-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country (s) or Region	Inventory Name	On Inventory (Yes/No)
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances	No

	(PICCS)	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

Section 16. Other Information, Including date of preparation or last revision

Issue Date: 05/16/2015

Version: 2

Disclaimer: The Data Contained in this Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to ensure his employees are properly informed and advised of all safety precautions required. The information is furnished for the compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use of dissemination of all or part of this information for any other purpose is prohibited by law.

TRIPLE POINT INDUSTRIES, LLC

TP-1030

Safety Data Sheet

Section 1. Identification

Product Identifier:	TP-1030
Other Means of Identification:	None
Product Type:	
Manufacturer Details:	
Company Name	Triple Point Industries, LLC
Address	PO Box 36423 Birmingham, AL 35236
Telephone	(205) 328-0808
Website	www.tpichemical.com
Email	charlestpi@aol.com
Emergency Telephone number:	**For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN794207 or +1 703-527-3887 (collect calls accepted)**

Section 2. Hazard(s) Identification

Physical Hazards	No data available	
Health Hazards	Corrosive to Metals	Category 1
	Acute toxicity, Inhalation	Category 4
	Serious eye damage/eye irritation	Category 2A
	Specific target organ systemic toxicity - repeated exposure, Inhalation	Category 2
Environmental Hazards	Not known to be an environmental hazard	

Label Elements:

Signal Word: WARNING

Hazard Statements:
H290 – May be corrosive to metals
H319 – Causes serious eye irritation.
H332 – Harmful if inhaled.
H373 – May cause damage to organs through prolonged or repeated exposure if inhaled

Precautionary Statements

Prevention:
P234 – Keep only in original container.
P260 – Do not breathe mist, vapors or spray.
P264 – Wash skin thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/ eye protection/ face protection.

Response:
P304 + P340 – **IF INHALED**: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 – **IF IN EYES**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 – Get medical advice/ attention if you feel unwell.
P337 + P313 – If eye irritation persists: Get medical advice/ attention.
P390 – Absorb spillage to prevent material damage.

Storage: P404 – Store in a closed container
Disposal: P501- Dispose of contents/container in accordance with local regulations

Other hazards which do not result in classification
H402 – Harmful to aquatic life
Harmful if swallowed.
Irritating to eyes.
Hazardous decomposition products formed under fire conditions.
May causes sensitization by inhalation.

Section 3. Composition/Information on Ingredients

Substance/Mixture: Mixture
Other Means of Identification: None

Ingredient Name	%	CAS number
*Sulfurous Acid, sodium salt	5 - 15	7757-83-7
*Ethylenediaminetetraacetic acid, tetrasodium salt	10 - 17	64-02-8
*Sodium hydroxide	0 - 1	1310-73-2
*Nitrilotriacetic acid, trisodium salt	0 - 1	5064-31-3

**The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition*

Section 4. First Aid Measures

Inhalation: If inhaled, move person to fresh air. Consult a physician after significant exposure. Call a doctor immediately if allergic signs, particularly in the respiratory tract, are observed.

Eye Contact: Rinse with plenty of water. Get medical attention immediately. Continue rinsing during transport to hospital. Remove contact lenses if present and easy to do so. Protect unharmed eye. Keep eye wide open during rinse.

Skin Contact: Take off/remove contaminated clothing immediately. Rinse with plenty of water. If skin irritation persists, call a physician/doctor.

Ingestion: Rinse mouth with water. Never give anything by mouth to unconscious person. Seek medical attention.

Note to Physician: Symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known. Treat symptomatically.

Most important symptoms and effects, both acute and delayed:
If inhaled: Headache. Breathing difficulties. Cardiac irregularities. Loss of consciousness and cardiopulmonary arrest
Effects: Mild respiratory irritant. May cause severe allergic respiratory reaction. Breathing of dust may aggravate asthma or other pulmonary diseases.
If in Eyes: Moderate eye irritation

Section 5. Fire-Fighting Measures

Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	Water may be ineffective
Specific Hazards arising from the Chemical:	Not combustible. Contact with water liberates hazardous gas. Sulphur dioxide. Sulfur oxides
Special Protective equipment:	Self-contained breathing apparatus, NIOSH approved. Body suit.
Specific methods:	Collect contaminated fire extinguishing water separately. This must NOT be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
General fire hazards:	Not available

Section 6. Accidental Release Measures

Personal Precaution, Protective	Avoid dust formation. Ensure adequate ventilation. Wear protective equipment when handling, such as goggles, protective gloves and protective clothing.
Equipment and Emergency Procedures:	Keep away from water.
Methods and Materials for containment and Cleaning up:	Soak up with inert absorbent material (sand, silica gel, acid binder). Keep in suitable, closed container for disposal.
Environmental precautions:	Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

Section 7. Handling and Storage

Precautions for safe handling:	Smoking, eating and drinking should be prohibited in the application area. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory diseases should NOT be employed in any process in which this mixture is being used. Provide sufficient air exchange and/or exhaust in workrooms. Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid prolonged or repeated contact with skin.
Conditions for sage storage, Including any incompatibilities:	Prevent unauthorized access. Keep container tightly closed in a dry, well-ventilated area. Keep away from heat/sparks/open flame/hot surfaces. No smoking. Store in a closed, dark container made of anti-corrosive material.

Section 8. Exposure Controls/Personal Protection

Advice on protection against Fire and explosion:	Normal measures for preventative fire protection.
Occupational exposure limits:	

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

COMPONENT	VALUE	CONTROL PARAMETER
Sodium hydroxide (CAS# 1310-73-2)	TWA STEL	2 mg/m^3 2 mg/m^3

US ACGIH Threshold Limit Value

COMPONENT	VALUE	CONTROL PARAMETER
Sodium hydroxide (CAS# 1310-73-2)	STEL – *Upper respiratory tract irritation. Eye irritation. Skin irritation.*	2 mg/m^3

US NIOSH: Pocket Guide to Chemical Hazards

COMPONENT	VALUE	CONTROL PARAMETER
Sodium hydroxide (CAS# 1310-73-2)	STEL	2 mg/m^3

Biological limit values: Not available

Appropriate engineering controls: Effective exhaust ventilation system. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual Protection measures:

- Eye/Face: Tightly fitting, chemical-resistant safety goggles.
- Skin: Preventative skin protection. Protective suit/clothing.
- Respiratory: In the case of aerosol formation use a respirator with an approved filter (NIOSH approved).
- Thermal Hazards: Not known to be a thermal hazard.

General Hygiene Considerations: Wash contaminated clothing before reuse. Eye wash bottle with pure water. Do not eat, drink or smoke while handling this product. Use only in area that is equipped with safety shower. Wash hands before breaks and at the end of the workday.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Form	Liquid
Color	Slight yellow tint
Odor	Mild
Odor Threshold	Not Available
pH	Not Available
Melting Point/Freezing Point	Not Available
Initial boiling point	230°F
Flash point	Above 250°F
Evaporation Rate	0.8
Flammability (Solid, Gas)	Not Available
Flammability limit- lower (%)	Not Available
Flammability limit- upper (%)	Not Available
Explosive limit- lower (%)	Not Available
Explosive limit- upper (%)	Not Available
Vapor pressure	18
Vapor density	1
Relative density	Not Available
Solubility (Water)	Total
Partition coefficient (n-octanol/water)	Not Available

Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Specific gravity	1.03
% Volatile by volume	85%

Section 10. Stability and Reactivity

Reactivity: This product is stable and un-reactive under normal conditions.
Stability: This product is stable under normal and recommended storage conditions.
Possibility of Hazardous Reactions: No data available
Conditions to avoid: Heat. Exposure to moisture.
Incompatible Materials: Aluminum. Zinc. Copper alloys. Copper. Nickel.
Hazardous Decomposition Materials: Carbon Oxides. Nitrogen

Section 11. Toxicological Information

Toxicity Information

Acute: May cause damage to organs through prolonged or repeated exposure.

Product/Ingredient Name	Test	Species	Result
Sulfurous Acid, sodium salt	LD50 Oral LD50 Oral	Mouse Rat	820mg/kg >2,000 mg/kg
Ethylenediaminetetraacetic acid, tetrasodium salt	LD50 Oral LD50 Inhalation	Rat Rat	1,780 mg/kg >1 – 5 mg/l, 4hours

Skin corrosion/irritation: No skin irritation

Serious eye damage/eye irritation: Eye irritation - Rabbit

Mutagenicity: In vitro tests showed mutagenic effects.

Carcinogenicity: IARC – Group 2B: possibility of carcinogenic effect to humans. Nitrilotriacetic acid, trisodium salt

OSHA specifically Regulated substances:

Reproductive Toxicity: No data available

Teratogenicity: No data available

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Section 12. Ecological Information

Ecotoxicity:

Product/Ingredient Name	Test	Species	Result
Sulfurous Acid, sodium salt	LC50	Carassius Auratus (goldfish)	100 mg/l, 96hours
Ethylenediaminetetraacetic acid, tetrasodium salt	LC50 LC50 EC50	Fish Daphnia Magna (water flea) Algea	> 100 mg > 500 mg > 100 mg
Sodium hydroxide	EC50	Ceriodaphnia (water flea)	40.4 mg/l

Biodegradability:

Method: Biochemical Oxygen Demand (BOD) instantaneous reaction.

Bioaccumulative potential:

Bioconcentration factor (BCF): Bioaccumulative potential

Mobility: Can be leached out from soil.

Other information: Oxygen scavenger, ecological injuries are not known or expected under normal use.

Section 13. Disposal Considerations

Disposal Methods: Respect local/federal and national regulations for hazardous waste and contact waste disposal services. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging: Empty remaining contents and dispose of as unused product. Containers that cannot be cleaned must be treated as waste.

Section 14. Transportation Information

	DOT Classification	IMDG	IATA
UN Number	UN3267	UN3267	UN3267
UN Proper Shipping Name	Corrosive liquid, basic, organic, N.O.S (Ethylenediaminetetraacetic acid, tetrasodium salt)	Corrosive liquid, basic, organic, N.O.S (Ethylenediaminetetraacetic acid, tetrasodium salt)	Corrosive liquid, basic, organic, N.O.S (Ethylenediaminetetraacetic acid, tetrasodium salt)
Transport Hazard Class(es)	8	8	8
Packing Group	III	III	III
Environmental Hazards	No	No	No
Additional Information	-	-	-

Special Precautions for user: Read this Safety Data Sheet before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

Section 15. Regulatory Information

US federal regulations:

TSCA Section 12(b) Export notification (40 CFR 707, Subpt. D)

Sulfurous acid, sodium salt (CAS# 7757-83-7)
Sodium Hydroxide (CAS# 1310-73-2)
Ethylenediaminetetraacetic acid, tetrasodium salt (CAS# 64-02-8)
Nitrilotriacetic acid, trisodium salt (CAS# 5064-31-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium Hydroxide (CAS# 1310-73-2) 1000 lbs.

SARA 304 Emergency release notification:

This material does not contain any components with a section 304 EHS RQ.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories

Acute health hazard
Chronic health hazard

SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous chemical

Fire hazard: No
Reactivity hazard: No
Sudden release or pressure hazard: No
Acute health hazard: Yes
Chronic health hazard: Yes

SARA 313 (TRI reporting)

Not listed

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not listed

Clean Air Act (CAA) Section 112(r) Accidental release prevention (40 CFR 68.130)

Not listed

Clean Water Act, section 311, table 116.4A, table 117.3

Sodium hydroxide (CAS# 1310-73-2)

US State regulations

US. Massachusetts RTK- Substances List

Nitrilotriacetic acid, trisodium salt (CAS# 5064-31-3)

US. New Jersey Worker and Community Right-to-Know Act

Ethylenediaminetetraacetic acid, tetrasodium salt (CAS# 64-02-8)

US. Pennsylvania Worker and Community Right-to-Know Law

Ethylenediaminetetraacetic acid, tetrasodium salt (CAS# 64-02-8)
Sodium Hydroxide (CAS# 1310-73-2)

US. Rhode Island RTK

Not listed

US. California Proposition 65

This product contains a chemical known in the state of California to cause cancer.
Nitrilotriacetic acid, trisodium salt

International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian inventory of Chemical Substances (AICS)	YES
Canada	Domestic Substances List (DSL)	YES
Canada	Non-Domestic Substance List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	YES
Europe	European Inventory of Existing Commercial Chemical Substance (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventoy of Existing and New Chemical Substances (EINCS)	YES
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	YES
Puerto Rico	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	YES
United States & Puerto Rice	Toxic Substance Control Act (TSCA) Inventory	YES

Section 16. Other Information, Including date of preparation or last revision

Revision Date: 11/2/15

Version: 2

HMIS Ratings
- Health:
- Flammability:
- Physical Hazard:

NFPA Ratings:
- Health:
- Flammability:
- Physical Hazard:

Disclaimer: The Data Contained in this Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to ensure his employees are properly informed and advised of all safety precautions required. The information is furnished for the compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use of dissemination of all or part of this information for any other purpose is prohibited by law.

Safety Data Sheet

1. Identification

Product identifier	**TP-1046**
Recommended use	**For industrial and manufacturing use only.**
Recommended restrictions	**None known.**

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	**Triple Point Industries**
Address	**PO Box 36423** **Birmingham, AL 35020** **United States**
Main Telephone Number	**(205) 328-0808**
Website	**www.tpichemical.com**
E-mail	**charlestpi@aol.com**
Emergency #: CHEMTREC	**1-800-424-9300**
Emergency #: CHEMTREC	**1-703-527-3887 (call collect)**

2. Hazard(s) identification

Physical hazards	**Not applicable**	
Health hazards	**Acute toxicity, oral**	**Category 4**
	Acute toxicity, dermal	**Category 4**
	Acute toxicity, inhalation	**Category 4**
	Skin corrosion/irritation	**Category 2**
	Serious eye damage/eye irritation	**Category 2A**
Environmental hazards	**Not classified.**	
OSHA defined hazards	**Combustible dust**	**Not applicable**
	Pyrophoric gas	**Not applicable**
	Simple asphyxiant	**Not applicable**

Label elements

Signal word	**Warning**
Hazard statement	**Combustible liquid. Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. Harmful to aquatic life with long lasting effects.**
Precautionary statement	
Prevention	**Avoid breathing vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing. Wear protective gloves/eye protection/face protection. Avoid release to the environment.**
Response	**If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.**
Storage	**Store away from incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in accordance with local/regional/national/international regulations.**
Disposal	**Dispose of contents/container in accordance with local/regional/national/international regulations.**

Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-butoxyethanol	Glycol Ether EB	111-76-2	0-1
Cobalt Chloride		7791-13-1	0-1
Water		-	98-99

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors and spray mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin, or on clothing. Avoid inhalation of vapors and spray mists. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3 50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3 5 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-butoxyethanol (CAS 111-76-2) Skin designation applies.

US - Tennessee OELs: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Colorless to Yellow
Odor	Bland
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	0°C
Initial boiling point	220°C

Flash point	Not available
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	25 mm Hg
Vapor density	1.0
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Total
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	1.04

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong Acids. Strong bases. Aluminum. Amines. Caustics.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure	
Inhalation	Harmful if inhaled.
Skin contact	Harmful in contact with skin. Causes skin irritation. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Information on toxicological effects	
Acute toxicity	Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed.

Components	Species	Test Results
2-butoxyethanol (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
Cobalt Chloride (CAS 7791-13-1)		
Acute		
Dermal		
LD50	Rat	> 2 mg/kg
Oral		
LD50	Rat	766 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
Cobalt Chloride (CAS 7791-13-1)	2B Carcinogen

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Cobalt Chloride (CAS 7791-13-1)	Possible Select Carcinogen

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.

Aspiration hazard	Not an aspiration hazard.
Chronic effects	May be harmful if absorbed through skin. Prolonged inhalation may be harmful. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity — The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
2-butoxyethanol (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
2-butoxyethanol	0.83
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods

IATA

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code — Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-butoxyethanol (CAS 111-76-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-butoxyethanol	111-76-2	100
Cobalt Chloride	7791-13-1	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US - California Candidate Chemicals: Listed

2-butoxyethanol (CAS 111-76-2)

US - California Candidate Chemicals: Listed on initial list

2-butoxyethanol (CAS 111-76-2)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

2-butoxyethanol (CAS 111-76-2)

US. New Jersey Worker and Community Right-to-Know Act

2-butoxyethanol (CAS 111-76-2)

US. Pennsylvania Worker and Community Right-to-Know Law

2-butoxyethanol (CAS 111-76-2)

US. Rhode Island RTK

2-butoxyethanol (CAS 111-76-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory		Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	3/6/2016
Version #	02
HMIS® ratings	Health: 2 Flammability: 2 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 2 Instability: 0

Disclaimer

Triple Point cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Triple Point provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Triple Point knows of no medical condition, other than those noted on this Safety Data Sheet, which are generally recognized as being aggravated by exposure to this product.

Triple Point
INDUSTRIES, LLC

TP-1480
Safety Data Sheet

SECTION 1: IDENTIFICATION

Product identifier	TP-1480
Other means of identification	N/A
Recommended use	N/A
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Company name	Triple Point Industries, LLC
Address	PO Box 36423 Birmingham, AL 35236
Telephone	(205) 328-0808
Website	www.tpichemical.com
E-mail	charlestpi@aol.com
Emergency Telephone number:	**For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN794207 or +1 703-527-3887 (collect calls accepted)**

SECTION 2: HAZARD(S) INFORMATION

Physical hazards	Not Classified	
Health hazards	Skin corrosion/irritation	Category 1A
	Serious eye damage/eye irritation	Category 1
	Acute Toxicity, Oral	Category 5
	Acute Toxicity, Dermal	Category 5
	Specific Target Organ Toxicity (Repeated Exposure)	Category 2
Environmental hazards	Hazardous to the aquatic environment, Acute hazard	Category 3
	Hazardous to the aquatic environment, Long-term hazard	Category 3
OSHA defined hazards	Not Available	
Label elements		
Signal Word	DANGER	
Hazard statement	H303 – May be harmful if swallowed H314 – Causes severe skin burns and eye damage H318 - Causes serious eye damage H333 – May be harmful if inhaled H373 – May cause damage to bone and kidneys through prolonged or repeated oral exposure H402 - Harmful to aquatic life H412 - Harmful to aquatic life with long lasting effects	

Response	P235 – Keep cool
	P237 – Avoid release to the environment
	P260 – Do not breathe vapors
	P264 – Wash contact area thoroughly after handling
	P280 – Wear protective gloves/protective clothing/eye protection/face protection.
	P301 + P330 + P331 – **IF SWALLOWED:** Rinse mouth. DO NOT induce vomiting.
	P303 + P361 + P353 – **IF ON SKIN (or hair):** Remove/take off immediately all contaminated clothing. Rinse SKIN with water/shower.
	P305 + P351 + P338 – **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P304 + P340 + P310 - **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P310 – Immediately call a POISON CENTER or doctor/physician.
	P312 – Call a POISON CENTER or doctor/physician if feeling unwell
	P321 – Specific treatment, see section 4 of this SDS.
	P363 – Wash contaminated clothing before reuse.
Storage	P403 – Store in a well-ventilated place.
	P405 – Store locked up.
Disposal	P501 – Dispose of contents/containers in accordance with local/regional/national and federal regulations.
Hazard(s) not otherwise Classified (HNOC)	None known
Supplemental information	None.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture
Other Means of Identification: Not Available

Ingredient Name	%	CAS Number
Sodium Hydroxide	18 - 20	1310-73-2
Phosphino carboxylic acid	6 - 8	71050-62-9

**The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.*

SECTION 4: FIRST-AID MEASURES

Inhalation	Move to fresh air. Call a physician/doctor if symptoms develop or persist.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call POISON CENTER or doctor/physician immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important Symptoms/effects, Acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical Attention and special Treatment needed.	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport. Keep victim under observation. Symptoms may be delayed.
General Information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water, fog. Foam. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to heath may be formed. Carbon oxides and phosphorous may be evolved during fires.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Respiratory and eye protection are required. Evacuate area and fight fire from safe distance.
Fire fighting Equipment/instructions	Move containers from fire area if you can do so without risk. Cool exposed containers with water spray to prevent over-heating.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth **and place into containers. Prevent entry into waterways, sewer, basements or confined areas.** Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to **remove residual contamination.** Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid **discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.**

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.
Conditions for safe storage, Including any incompatible Materials.	Store locked up. Store in original, tightly-closed container. Store away from incompatible materials (see section 10 of this SDS). Store in a cool, dry well-ventilated area. Empty containers retain vapor and material Reside.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 19 10.1000)

Component	*Type*	*Value*
Sodium Hydroxide (CAS 1310-73-2)	PEL	2 mg/m^3

US ACGIH Threshold Limit Values

Component	Type	Value
Sodium Hydroxide (CAS 1310-73-2)	PEL	2 mg/m^3

US NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Sodium Hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m^3

Biological limit values — No biological exposure limits noted for theingredient(s).

Appropriate engineering controls — Good general ventilation (typically 10 air changes per hour). Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment:

Eye/face protection — Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection — Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier

Other — Wear appropriate chemical resistant clothing.

Respiratory protection — Avoid breathing mist or vapor. Where risk assessment shows air-purifying respirators are appropriate, use full-face respirator with multi-purpose combination respirator cartridges as a back up to engineering controls.

Thermal hazards — Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations — Always observe good personal hygiene measures, such as washing after handling this material and before eating, drinking and/or smoking. Routinely was work clothing and protective equipment to remove contaminants.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance — Clear, yellow liquid

Physical state — Liquid

Form — Liquid

Color — Clear, yellow

Odor — Bland odor

Odor threshold	Not Available
pH	
Melting point	Not Available
Freezing point	Not Available
Initial boiling point and	220 °F
boiling range	Not Available
Flash point	Above 250 °F
Evaporation rate	0.8
Flammability Class	Not Determined
Upper/Lower flammability or explosive limits	
Flammability limit – lower (%)	Not available.
Flammability limit – upper (%)	Not available.
Explosive limit – lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapor pressure	18 hPa estimated
Vapor density	Not Available
Relative density	Not Available
Solubility(ies)	
Solubility (water)	Not Available
Partition Coefficient	Not Available
(n-octanol/water)	
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Other information	
Specific gravity	1.14 estimated
Gallon Weight	*9.83 lbs/gal estimated*
Percent volatile	*75% estimated*

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal ambient conditions of temperature and pressure.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong Acids. Alkaline materials. Acid reactive salts such as nitrites and sulfites. Mild steel.
Hazardous decomposition products	Oxides of carbon and oxides of phosphorous

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely route of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye Contact	Causes serious eye irritation.
Ingestion	Causes digestive tract burns.
Symptoms related to the Physical, chemical and Toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute Toxicity:	Oral LD_{50} (Rat): >5000 mg/kg
Skin corrosion/irritation:	Causes severe skin burns and eye damage
Serious eye damage/eye Irritation	Causes serious eye damage

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer
Skin sensitization	This product is not expected to cause skin sensitization
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not Listed

Reproductive toxicity	This product is not expected to cause reproductive or development effects
Specific target organ Toxicity – single exposure	Not Classified
Specific target organ Toxicity – repeated exposures	Not Classified
Aspiration hazard	Not Classified
Chronic effects	Prolonged inhalation may be harmful. A 90-day feeding study on rats indicated bone damage and kidney effects with similar products.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Product	Species	Test Results, Exposure time
Sodium Hydroxide (CAS 1310-73-2)		
Aquatic		
Crustacea EC50	Water flea	34.59 – 47.13 mg/l, 48 hours
Fish LC50	Mosquito fish	125 mgl, 96 hours
Phosphino carboxylic acid (CAS 71050-62-9)		
LC_{50}	Rainbow Trout	>1000 ppm (solids), 96 hours
LC_{50}	Zebra Fish	>1000 ppm (Solids), 96 hours
LC_{50}	Brown Shrimp	>10,000 ppm, 96 hours
EC_{50}	Daphnia Magna	>320 ppm, 24 hours
EBC_{50}	Algae – Scenedesmus subspicatus	1360 ppm, 0-72 hours

* Estimates for product may be based on additional component date not shown.

Persistence and degradability
BOD: Modified OECD test 301E – Not biodegradable
OECD: Closed bottle test 301D – Not biodegradable
COD: 1.113 g Oxygen/g

Bio accumulative Potential
No data available.

Mobility in soil
No data available

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations
Hazardous waste code disposal company.	The waste code should be assigned in discussion between the user, the producer and the waste
Waste from residue/unused	Dispose of in accordance with local regulations. Empty containers or liners may retain some products residues. This material and tis container must be disposed of in a safe manner (see Disposal instructions)
Containment packaging	Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14: TRANSPORT INFORMATION

DOT

UN Number	**UN1824**
UN Propper shipping name	**Sodium Hydroxide Solution**
Transport Hazard class(es)	
Class	**8**
Subsidary Risk	**-**
Packing Group	**II**
Special precautions for users	Read safety instructions, SDS and emergency procedure before handling
ERG Number	**154**

DOT

DOT Label

Transport in bulk according To Annex II of MARPOL 73/78 And IBC Code	Not established

SECTION 15: REGULATORY INFORMATION

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communications Standard, 29 CFR 1910.1200	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated	
CERCLA Hazardous Substance List (40 CFR 302.4)	Sodium Hydroxide (CAS 1310-73-2)	Listed.
SARA 304 Emergency Release notification	Not regulated	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.	

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazardous categories
- Immediate Hazard – Yes
- Delayed Hazard – No
- Fire Hazard – No
- Pressure Hazard – No
- Reactivity Hazard – No

SARA 302 Extremely hazardous substance
Not listed

SARA 311/312 Hazardous chemical
Delayed Chronic Health Hazards 10,000 lbs

SARA 313 (TRI reporting)
Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated

Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130)
Not regulated

Safe Drinking Water Act (SDWA)
Not regulated

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section (11100)
Not listed

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3 subd. (a))
Sodium Hydroxide (CAS 1310-73-2)

US. Massachusetts RTK – Substance List
Sodium Hydroxide (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act
Sodium Hydroxide (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law
Sodium Hydroxide (CAS 1310-73-2)

US. Rhode Island RTK
Sodium Hydroxide (CAS 1310-73-2)

US. California Proposition 65
California Safe Drinking Water and Toxic Environment Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian inventory of Chemical Substances (AICS)	YES
Canada	Domestic Substances List (DSL)	YES
Canada	Non-Domestic Substance List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	YES
Europe	European Inventory of Existing Commercial Chemical Substance (EINECS)	YES
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventoy of Existing and New Chemical Substances (EINCS)	YES
Korea	Existing Chemicals List (ECL)	YES
New Zealand	New Zealand Inventory	YES
Puerto Rico	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	YES
United States & Puerto Rice	Toxic Substance Control Act (TSA) Inventory	YES

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Issue date	09/24/2015
Version #	2
HMIS® Ratings	Health: 3 Flammability: 0 Physical Hazards: 0
NFPA Ratings	Health: 3 Flammability: 0 Instability: 0

Disclaimer: The Data Contained in this Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to ensure his employees are properly informed and advised of all safety precautions required. The information is furnished for the compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use of dissemination of all or part of this information for any other purpose is prohibited by law.

TRIPLE POINT INDUSTRIES, LLC

TP-1540

Safety Data Sheet

Section 1. Identification

Product Identifier:	TP-1540
Other Means of Identification:	Water Treatment Chemical
Product Type:	Mixture
Manufacturer Details:	
Company Name	Triple Point Industries, LLC
Address	PO Box 36423 Birmingham, AL 35236
Telephone	(205) 328-0808
Website	www.tpichemical.com
Email	charlestpi@aol.com
Emergency Telephone number:	**For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN794207 or +1 703-527-3887 (collect calls accepted)**

Section 2. Hazard(s) Identification

Physical Hazards	Not Classified	
Health Hazards	Acute toxicity, oral	Category 3
	Acute toxicity, Inhalation	Category 4
	Acute toxicity, Dermal	Category 3
	Skin corrosion	Category 1B
	Serious eye damage	Category 1
	Skin sensitization	Category 1
Environmental Hazards	Acute aquatic toxicity	Category 3
	Chronic aquatic toxicity	Category 3

OSHA defined Hazards
Label Elements:

Signal Word: DANGER

Hazard Statements:
H301 + H311 – Toxic if swallowed or in contact with skin
H314 – Causes severe skin burns and eye damage
H317 – May cause an allergic reaction
H318 – Causes serious eye damage
H402 – Harmful to aquatic life
H412 – Harmful to aquatic life with long lasting effects

Precautionary Statements
Prevention:
P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P233 – Keep container tightly closed.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray
P264 – Wash contact area thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area
P272 – Contaminated clothing should not be allowed out of the workplace.

P273 – Avoid release to the environment.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P281 – Use personal protective equipment as required.

Response:

P303+361+353 – IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse SKIN with water/shower.
P301+ P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330 + P331 – Rinse mouth. Do NOT induce vomiting.
P305+351+338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 – If exposed or concerned: Get medical advice/attention.
P361 – Remove/take off immediately all contaminated clothing.
P363 – Wash contaminated clothing before reuse.

Storage:

P403 + P235 – Store in a well-ventilated place. Keep cool.
P273 + P405 – Avoid release to the environment. Store locked up.

Disposal:

P501 – Dispose of contents/container in accordance with local, regional, national, territorial, provincial and international regulations.

Section 3. Composition/Information on Ingredients

Substance/Mixture:
Other Means of Identification:

Ingredient Name	%	CAS number
*Morpholine	5 - 9	Proprietary
*Cyclohexylamine	5 - 9	Proprietary

**The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.*

Section 4. First Aid Measures

Inhalation: If safe to do so, remove individual from further exposure. Keep warm and at rest. If breathing has ceased, give artificial respiration. Do not give mouth-to-mouth resuscitation. Get medical attention/consult a physician immediately.

Eye Contact: Flush skin with running water for at least fifteen minutes. Remove any contact lenses. Get medical attention immediately. Continue to rinse eyes during transport to the hospital.

Skin Contact: Remove contaminated clothing. Wash skin with plenty of running water and soap. Take victim immediately to the hospital. Consult a physician.

Ingestion: If product is swallowed, first rinse mouth. Give small amount of water to drink. Call doctor/physician/poison center immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in recovery position so the vomit does not enter lungs.

General information: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
PPE for first responders Gloves and safety goggles are highly recommended.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media: Do not use water jet as an extinguisher, as this will spread fire.
Specific Hazards arising from the Chemical: Carbon oxides, Nitrogen oxides (NOx)

Fire Fighting equipment: Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (bunker gear) and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. Evacuate area and fight fire from safe distance or a protected location. Move fire-exposed containers, if allowable without sacrificing safety of the firefighters. If possible, firefighters should control run-off water to prevent environmental contamination.

Fire Fighting Procedures: Hazardous decomposition and combustion products such as carbon/nitrogen oxides can be formed if product is burning. Cool exposed containers with water spray to prevent over heating.

Flammable Limits: No data available

Section 6. Accidental Release Measures

Personal Precaution, Protective Equipment and Emergency Procedures:

General Measures: Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and Materials for containment and Cleaning up:

Contain spillage, and then collect with an electronically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

Release Note: If spill could potentially enter any waterway, including intermittent dry creeks, contact local authorities.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation or vapor or mist. Keep away from source of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for sage storage, Including any incompatibilities: Store in a cool, dry, well-ventilated area. Keep containers closed and up right when not in use. Keep product isolated from incompatible materials/conditions. Handle under inert gas. Protect from moisture. Air sensitive. Store class (TRGS 510): Flammable liquids.

Section 8. Exposure Controls/Personal Protection

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

COMPONENT	VALUE	CONTROL PARAMETER
Morpholine (CAS# 110-91-8)	TWA – *Skin notation*	20 ppm; 70 mg/m^3
	STEL – *Skin notation*	30 ppm; 105 mg/m^3
	TWA – *Skin designation (value in mg/m^3)*	20 ppm; 70 mg/m^3

US ACGIH Threshold Limit Value

COMPONENT	VALUE	CONTROL PARAMETER
Morpholine (CAS# 110-91-8)	TWA – *Respiratory Tract Irritation, Eye Damage, Not classified as carcinogen, Danger of cutaneous absorption.*	20 ppm
Cyclohexlamine (CAS# 108-91-8)	TWA – *Upper respiratory tract irritation, Eye irritation, Not classified as carcinogen*	10 ppm

US NIOSH: Pocket Guide to Chemical Hazards

COMPONENT	VALUE	CONTROL PARAMETER
Morpholine (CAS# 110-91-8)	TWA – *Potential for dermal absorption* ST – *Potential for dermal absorption*	20 ppm; 70 mg/m^3 30 ppm; 105 mg/m^3
Cyclohexlamine (CAS# 108-91-8)	TWA – *Upper respiratory tract irritation, Eye irritation, Not classified as carcinogen*	10 ppm; 40 mg/m^3

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Use appropriate engineering controls to avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

Individual Protection measures:

Eye/Face: Tightly fitting safety goggles. Face shield (8-in minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH.

Skin: Avoid direct contact with skin. Wear rubber gloves, apron, boots, or whole bodysuit when handling this product. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of any contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory: Where risk assessment shows air-purifying respirators are appropriate, use full-face respirator with multi-purpose combination respirator cartridge as a back up to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH.

Thermal Hazards: Complete suit protecting against chemicals; flame retardant anti-static protective clothing. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific work place.

Work hygienic practices: Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal hygiene practices should always be followed.

Controls of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Form	Liquid
Color	Colorless
Odor	Ammonia-like odor
Odor Threshold	Not Available
pH	Not Available
Melting Point/Freezing Point	Not Available
Initial boiling point	200°F
Flash point	27°C (81°F) Closed Cup
Evaporation Rate	1.1
Flammability (Solid, Gas)	Not Available

Flammability limit- lower (%)	Not Available
Flammability limit- upper (%)	Not Available
Explosive limit- lower (%)	Not Available
Explosive limit- upper (%)	Not Available
Vapor pressure	25
Vapor density	1.0
Relative density	Not Available
Solubility (Water)	Soluble
Partition coefficient (n-octanol/water)	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Specific gravity	1.17 estimated
Gallon Weight	Not Available
Percent Volatile	100%

Section 10. Stability and Reactivity

Stability: Material is stable under normal storage conditions.

Possibility of Hazardous Reactions: Vapors may form explosive mixture in the air.

Conditions to avoid: Heat, flames, sparks.

Incompatible Materials: Strong oxidizing agents, Strong acids, Copper, Zinc, and Iron. Do not store near acids.

Hazardous decomposition Materials: No data available.

Section 11. Toxicological Information

Acute Toxicity Data:

Product/Ingredient Name	Test	Species	Result, Exposure	Remarks
Morpholine (CAS# 110-91-8)	LD50 Oral LC50 Inhalation LD50 Dermal	Rat Rat Rabbit	1,450 mg/kg 8000ppm, 8 hours 500 mg/kg	NA NA NA
Cyclohexlamine (CAS# 108-91-8)	LD50 Oral LC50 Inhalation LD50 Dermal	Rat Rat Rabbit	300 mg/kg 7,500 mg/m^3 277 mg/kg	*Inhalation: Behavioral – Excitement; muscle contraction or spasticity*

Skin corrosion/irritation:

Product/Ingredient Name	Test	Species	Result
Morpholine (CAS# 110-91-8)	Skin	Rabbit	Severe skin irritation – 24 hr
Cyclohexlamine (CAS# 108-91-8)	Skin	Rabbit	Severe skin irritation – 24 hr

Serious eye damage/eye irritation:

Product/Ingredient Name	Test	Species	Result
Morpholine (CAS# 110-91-8)	Eyes	Rabbit	Severe eye irritation
Cyclohexlamine (CAS# 108-91-8)	Eyes	Rabbit	Severe skin irritation – 24 hr

Respiratory or skin sensitization: No data available

Mutagency:

Product/Ingredient Name	Species	Result
Morpholine (CAS# 110-91-8)	Mouse Hampster	Lymphocyte and morphological transformation Ovary and sister chromatid exchange

Carcinogenicity: This product is or contains component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification

Product/Ingredient Name	Species	Result
Morpholine (CAS# 110-91-8)	Mouse - Oral	Tumorigenic: Neoplastic by RTECS criteria. Lungs, Thorax, or Respiration: Bronchiogenic carcinoma. Liver: Tumors.

IARC: Morpholine (CAS# 110-91-8) 3 Not Classifiable as to carcinogenicity of humans.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a probably, possible, or confirmed human carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a probably, possible, or confirmed human carcinogen by OSHA.

Reproductive toxicity: Suspected human reproductive toxicant.

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Aspiration hazard: No data available

Additional information: RTECS: KK5075000, QD647500, GX0700000

Material is extremely destructive to tissue of the mucus membranes and upper respiratory tract, eyes, and skin. Cough, shortness of breath, headache, and nausea. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological Information

All work practices must be aimed at eliminated environmental contamination.

Ecotoxicity:

Product/Ingredient Name	Test, Aquatic	Species	Result, Exposure
Morpholine (CAS# 110-91-8)	LC50, Fish	Oncohynchus mykiss (rainbow trout)	180-380 mg/l, 96 Hours
	EC50, Daphnia	Daphnia magna (water flea)	100 mg/l, 24 Hours
	LOEC, Growth inhibition	Desmodesmus subspicatus (green algae)	80 mg/l, 1 Hour
	EC50, Green Algae	Desmodesmus subspicatus (green algae)	>310 mg/l, 72 Hours
Cyclohexlamine (CAS# 108-91-8)	LC50, Fish	Leuciscus idus (Golden orfe)	44 mg/l, 96 Hours
	EC50, Daphnia	Daphnia magna (water flea)	49 mg/l, 24 Hours
	EC0, Daphnia	Daphnia magna (water flea)	22 mg/l, 24 Hours
	EC50, Algae	Pseudokirchneriella subcapiata (green algae)	20 mg/l, 96 Hours

Biodegradability: Cyclohexlamine (CAS# 108-91-8): aerobic – Exposure time 20d. Result: 92% - readily biodegradable

Bioaccumulative Potential: No data Available

Mobility in Soil: No data available

Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Section 13. Disposal Considerations

Disposal Methods: Dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations.

For large spills: Contain material and call local authorities for emergency assistance.

Product disposal: Dispose of at a supervised incineration facility or an appropriate waste disposal facility according to current applicable local, state and federal laws, regulations and product characteristics at time of disposal.

Empty Containers: Contaminated container should be labeled and disposed in accordance to local, state and federal laws and regulations.

Section 14. Transportation Information

	DOT Classification	IMDG	IATA
UN Number	UN3267	UN3267	UN3267
UN Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.	Corrosive liquid, basic, inorganic, n.o.s.	Corrosive liquid, basic, inorganic, n.o.s.
Transport Hazard Class(es)	8	8	8
Packing Group	I	I	I
Labels	CORROSIVE	CORROSIVE	CORROSIVE

Section 15. Regulatory Information

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard

SARA 302 Components:

Cyclohexlamine (CAS# 108-91-8)

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312:

Fire hazard, Acute health hazard, Chronic health hazard.

US State regulations

US. Massachusetts RTK- Substances List

Cyclohexlamine (CAS# 108-91-8)
Morpholine (CAS# 110-91-8)

US. New Jersey Worker and Community Right-to-Know Act

Cyclohexlamine (CAS# 108-91-8)
Morpholine (CAS# 110-91-8)

US. New Jersey Environmental Hazardous Substances and/or New Jersey RTK Special Hazardous:

Cyclohexlamine (CAS# 108-91-8)

US. Pennsylvania Worker and Community Right-to-Know Law

Cyclohexlamine (CAS# 108-91-8)
Morpholine (CAS# 110-91-8)

US. California Proposition 65

This product does contain less than 1% of a chemical known to the state of California to cause birth defects or other productive harm:

Ingredient	Cancer	Reproductive	No Significant Risk Level	Maximum acceptable dosage level
Ethylene Glycol Monomethyl Ether	No	Yes	No	63 µg/day (ingestion)

WHMIS Canada:

Class B-2: Flammable liquid with a flash point lower than 31°C. Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class E: Corrosive liquid.

OSHA Hazcom Standard Rating: Hazardous
US Toxic Substances Control Act: Listed on the TSCA Inventory
US EPA CERCLA Hazardous Substance: Not listed

Section 16. Other Information, Including date of preparation or last revision

Revision Date: 11/2/2015

Version: 3

HMIS Ratings
- Health: 3
- Flammability: 3
- Physical Hazard: 0

NFPA Ratings:
- Health: 3
- Flammability: 3
- Physical Hazard:0

Disclaimer: The Data Contained in this Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to ensure his employees are properly informed and advised of all safety precautions required. The information is furnished for the compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use of dissemination of all or part of this information for any other purpose is prohibited by law.

TRIPLE POINT INDUSTRIES, LLC

SAFETY DATA SHEET

1. Identification

Product identifier **TP-8125**

Other means of identification None.

Recommended use ALL PROPER AND LEGAL

Recommended restrictions PURPOSES None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Triple Point Industries, LLC

Address 3030 Mountain View Way
Bessemer, AL 35020

Telephone 205-328-0808

E-mail Not available.

Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
HYPOCHLOROUS ACID, SODIUM SALT (1:1)		7681-52-9	12.5
SODIUM HYDROXIDE (NA(OH))		1310-73-2	0.7
Other components below reportable levels			86.8

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)	STEL	2 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color CLEAR PALE YELLOW

Odor CHLORINE

Odor threshold Not available.

pH 11.5 - 13.5

Melting point/freezing point -3 °F (-19.44 °C)

Initial boiling point and boiling range 230.55 °F (110.3 °C) estimated

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	10.00 lbs/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	86.8 % estimated
Specific gravity	1.2

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)			
Aquatic			
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.038 - 0.065 mg/l, 96 hours
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1791
UN proper shipping name	HYPOCHLORITE SOLUTIONS
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	154

DOT information on packaging may be different from that listed.

IATA

UN number	1791
UN proper shipping name	HYPOCHLORITE SOLUTIONS
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT

IATA

General information IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)	Listed.
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Massachusetts RTK - Substance List
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Rhode Island RTK
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-09-2018
Revision date	NA
Version #	1
HMIS® ratings	Health: 3 Flammability: 0 Physical hazard: 0

NFPA ratings	Health: 3 Flammability: 0 Instability: 0
Disclaimer	While Triple Point believes the information contained herein to be accurate, Triple Point makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Triple Point's terms and conditions of sale.

TRIPLE POINT
INDUSTRIES, LLC

TPI-215

Safety Data Sheet

Section 1. Identification

Product Identifier:	TPI-215
Other Means of Identification:	Biocide
Product Type:	Liquid
Manufacturer Details:	
Company Name:	Triple Point Industries LLC
Address:	P.O. BOX 36423 Birmingham, AL 35236
Telephone:	205-328-0808
Website:	www.tpichemical.com
Email:	charlestpi@aol.com

Emergency Telephone number: **For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 CCN794207 or +1 703-527-3887 (collect calls accepted)**

Section 2. Hazard(s) Identification

Physical Hazards
Health Hazards
Environmental Hazards: OSHA defined Hazards: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of Substance or mixture:
SKIN CORROSION/IRRITATION – Category 1B
SERIOIUS EYE DAMAGE/EYE IRRITATION - Category 1
SKIN SENSITIZATION – Category 1

Label Elements:

Signal Word: DANGER

Hazard Statements:
Causes severe skin burns and eye damage
May cause an allergic skin reaction

Precautionary Statements
Prevention: Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IFSWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IFON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IFON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. IFIN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage:	Store locked up.
Disposal:	Dispose of contents and container in accordance with all local, regional, national and international regulations

Section 3. Composition/Information on Ingredients

Substance/Mixture: Mixture
Other Means of Identification: Biocides

Ingredient Name	%	CAS number
Magnesium Nitrate	1.856-2.436	10377-60-3
5-Chloro-2-methy l-4-isothiazolin-3-one	1.16 - 1.392	26172-55-4
2-Methyl-4-isothiazo lin-3-one	0.348 - 0.58	2682-20-4
Nitric acid, copper(2+) salt (2:1)	0.212	3251-23-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

While some *substances are claimed* as *trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i), all known hazards are clearly communicated within this document.*

Per Appendix D 1919.1200 OSHA, ranges can be used when there is batch-to-batch variability in a mixture or a trade secret claim.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First Aid Measures

Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Eye Contact:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Skin Contact:	Take *off* contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion:	Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water, if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
Note to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

Suitable Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire.

Section 5. Fire-Fighting Measures

Unsuitable Extinguishing Media: None known.

Specific Hazards arising from the Chemical: In a fire or if heated, a pressure increase will occur and the container may burst. Firewater contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
Carbon dioxide
Carbon monoxide
Nitrogen oxides
Sulfur oxides
Halogenated compounds
Metal oxide/oxides

Special Protective equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire Fighting equipment: Not Available.

Specific methods: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

General fire hazards: Not Available

Section 6. Accidental Release Measures

Personal Precaution, Protective Equipment and Emergency Procedures: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal

protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmentall pollution (sewers, waterways , soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and Materials for containment and Cleaning up:

Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, watercourses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for sage storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Satisfactory Materials of Construction:	304 Stainless steel
	316 Stainless steel
	PVC -flexible PVC -rigid Polyethylene - crosslink Polyethylene - high density Polyethylene - low density Polypropylene Rehau Tubing EPDM rubber Butyl rubber ABS (Plastic) Teflon Tygon F-4040 Tygon tubing R3603 Polyurethane Tubing Pharmed Tubing FRP Norprene Dow Sillastic Tube Polycarbonate Polystyrene
	NOTE: With respect to all other materials not listed above, user should be aware that use of such materials with this product may be hazardous and result in damages to such materials and other property and personal injuries. No data concerning such materials not listed above should be implied by the user.

Section 8. Exposure Controls/Personal Protection

Occupational exposure limits:	None.
Biological limit values:	Not Available.
Appropriate engineering controls:	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual Protection measures:

Eye/Face: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Thermal Hazards: Not Available.

General Hygiene Considerations (if any) : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and Chemical Properties

Physical State	Liquid.
Color	Green to pale yellow
Odor	Pungent. [Strong]
Odor Threshold	Not available.
pH	2.5 to 5
Melting Point/Freezing Point	-3°C (26.6°F)
Initial boiling point	100°C (212°F)
Flash point	Closed cup: >100°C (>212°F) [Pensky-Martens.)
Evaporation Rate	Not available.
Flammability (Solid, Gas)	Not available.
Flammability limit- lower (%)	Not available.
Flammability limit- upper (%)	Not available.
Explosive limit- lower (%)	Not available.
Explosive limit- upper (%)	Not available.
Vapor pressure	0.0013 kPa (0.01 mm Hg) [room temperature]
Vapor density	Not available.
Relative density	1.01 to 1.03
Solubility (Water)	Soluble in the following materials: cold water and hot water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Dynamic (room temperature): 3 mPa·s (3 cP)
Specific gravity	Not available.

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and Reactivity

Stability: The product is stable.

Possibility of Hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible Materials: No specific data.

Hazardous decomposition Materials: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Information on likely routes of exposure: Routes of entry anticipated: Dermal, Inhalation

Section 11. Toxicological Information

Routes of entry not anticipated: Oral.

Potential acute health effect:

Inhalation:	No known significant effects or critical hazards.
Skin Contact:	Causes severe burns. May cause an allergic skin reaction.
Eye Contact:	Causes serious eye damage.
Ingestion:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:	No specific data.
Skin Contact:	Adverse symptoms may include the following: Pain or irritation Redness Blistering may occur
Eye Contact:	Causes serious eye damage.
Ingestion:	Adverse symptoms may include the following: Stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure

Potential immediate effects:	Not Available
Potential delayed effects:	Not Available

Long Term Exposure:

Potential immediate effects:	Not Available
Potential delayed effects:	Not Available
Potential Chronic health effects:	Not Available
Conclusion/Summary:	The following tests were conducted with the technical grade active ingredient(s):

Ames Salmonella Assay:
Positive (T100) without activation; Negative with activation
Mouse Lymphoma Forward Mutation Assay:
Positive
Rat Bone Marrow Cytogenetics Assay
Negative, no chromosomal damage
In Vivo Micronucleus Assay in Mice:
Negative
Sex-Linked Recessive Lethal Assay:
Negative
Teratology

Rabbits: Dose levels used were 1.5, 4.4 and 13.3 mg/kg/day. Dose related maternal toxicity was observed. No evidence of a teratogenic response, but evidence of embryotoxicity and fetotoxicity was noted.
Rats: Maternal toxicity was observed at all dose levels. No evidence of ateratogenic response at doses up to 100 mg/kg/day (highest dose tested).

90 Day Subchronic Toxicity

Oral- Rats: There was a dose related increase in adrenal weights in the females. A slight, but significant increase in SGOT was noted in the high dose (800 ppm) males. No other changes were noted.

Oral - Dogs: No treatment related effects were noted at doses up to 1500 ppm (highest dose tested).

Dermal - Rabbits: Dose levels of 100, 200 and 400 ppm active (1 ml/kg) produced dose dependent signs of dermal irritation. No treatment related signs of systemic toxicity, or changes in clinical chemistry parameters, or histopathological evaluation.

Inhalation - Rats: Exposed to levels of product at 0, 0.34, 1.15 and 2/64 mg active per cubic meter. There were no treatment related changes in hematology, gross pathology or ophthalmology. Decrease weight gains were noted in the high dose group. Histopathologic effects related to irritation/rhinitis of the nasal cavity was noted in the mid and high dose groups. No treatment related effects were noted in the low dose group.

Metabolism
Oral - Rats: After a dosage of 2.5 mg/kg/day given for 7 days, 90% of the administered C14 was excreted in 3 days; <2% as parent compound.

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: Did not cause cancer in laboratory animals.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Development effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity effects: Not Available

Information on toxicological effects

Acute toxicity:

Product/Ingredient Name	Result	Species	Dose	Exposure
Nitric acid, copper(2+) salt (2: 1)	LD50 Oral	Rat	794 mg/kg	-
TPI-215	LC50 Inhalation Gas.	Female	1.5 mg/l	4 hours
	LC50 Inhalation Gas.	Male	1.4 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3810 mg/kg	-

Irritation/Corrosion:

Product/Ingredient Name	Result	Species	Exposure
Nitricacid, copper(2+)salt(2: 1)	Eyes-Severe	Rabbit	100 milligrams
	irritant Eyes-	Rabbit	0.066666667 minutes 100
TPI-215	Severeirritant		milligrams 500 milligrams
			-
	Skin - Severeirritant	Rabbit	-
	Eyes - Severe irritant		

	Skin - Severe irritant		

Sensitization:

Product/Ingredient Name	Route of Exposure	Species	Result
5-Chloro-2-methyl-4-isothiazolin-3-one	Skin	Guinea pig	Sensitizing
2-Methyl-4-isothiazolin-3-one	Skin	Guinea pig	Sensitizing

Mutagency: Not Available

Carcinogenicity: This product has not been tested unless noted in summary results.

Classification

Product/ingredient name	OSHA	IARC	NTP
Magnesium Nitrate	-	2A	-
Nitric acid, copper(2+) salt (2: 1)	-	2A	-

Reproductive Toxicity: Not Available

Teratogenicity: Not Available

Specific target organ toxicity (single exposure): Not Available

Specific target organ toxicity (repeated exposure): Not Available

Section 12. Ecological Information

Toxicity:

Product	Result	Species	Exposure
TPI-215	Acute IC50 0.16 mg/l	Daphnia	48 Hours
	Acute LC50 0.19 mg/l	Fish	96 Hours
	Acute LC50 0.28 mg/l	Fish	96 Hours
	Acute LC50 0.3 mg/l	Fish	96 Hours
	Acute LC50 0.55 mg/l	Fish	96 Hours
	Acute LC50 1.9 mg/l	Fish	96 Hours

Section 13. Disposal Considerations

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be

disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Local disposal regulations: Not Available
Hazardous Waste Code: Not Available
Waste from Residues/ Unused products: Not Available
Contaminated packaging: Not Available

Section 14. Transportation Information

	DOT Classification	IMDG	IATA
UN Number	3265	3265	3265
UN Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-Chloro-2-methyl-4-isothiazolin-3-one,2-Methyl-4-isothiazolin-3-one) RQ (copper dinitrate)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-Chloro-2-methyl-4-isothiazolin-3-one,2-Methyl-4-isothiazolin-3-one) Marine Pollutant (5-Chloro-2-methyl-4-isothiazolin-3-one,2-Methyl-4-isothiazolin-3-one)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-Chloro-2-methyl-4-isothiazolin-3-one,2-Methyl-4-isothiazolin-3-one)
Transport Hazard Class(es)	8	8	8
Packing Group	II	II	II
Environmental Hazards	No	Yes	No

Special Precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not Available

Section 15. Regulatory Information

Potential impurities present in trace quantities are included in the regulatory listings of this section.

US federal regulations: **TSCA 12(b) one-time export**: 5-chloro-2-methyl-2H-isothiazol-3-one.
United States inventory (TSCA 8b): This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from US Toxic Substances Control Act (TSCA) Inventory listing requirements.
Clean Water Act (CWA) 307: copper dinitrate

CERCLA Hazardous Substance List (40 CFR 302.4): nitric acid; copper dinitrate: 100 lbs (45.4kg);
FDA:
BfR: XIV, XXXVI, XXXVI/1
EPA Reg. No: 69967-AL-002
SARA 304 Emergency release notification:
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
FIFRA:
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard Categories

SARA 302/304 Extremely hazardous substance

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Nitric acid	0.02	Yes.	1000	85.7	1000	85.7

SARA 304 RQ: 5000000 lbs / 2270000kg [587912.3gal / 2225490.2L]

SARA 311/312 Hazardous chemical
Classification: Immediate (acute) health hazard

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Magnesium Nitrate	1.856-2.436	No.	No.	No.	No.	Yes.
5-Chloro-2-methy l-4-isothiazolin-3-one	1.16 -1.392	No.	No.	No.	Yes.	No.
2-Methyl-4-isothiazolin-3-one	0.348 - 0.58	No.	No.	No.	Yes.	No.
Nitric acid, copper(2+) salt (2:1)	0.212	No.	No.	No.	Yes.	Yes.

SARA 313 (TRI reporting)

	Product name	CAS number	%

Form R - Reporting requirements	Magnesium Nitrate	10377-60-3	1.856 -2.436
Supplier notification	Magnesium Nitrate	10377-60-3	1.856 - 2.436

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Other Federal Regulations (Not available)

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Clean Air Act (CAA) Section 112(r) Accidental release prevention (40 CFR 68.130)

Safe Drinking Water Act (SDWA)

US State regulations (Not Available)

US California Controlled Substances. Ca Department of Justice (California Health and Safety Code Section 11100)

US. Massachusetts RTK- Substances List

US. New Jersey Worker and Community Right-to-Know Act

US. Pennsylvania Worker and Community Right-to-Know Law

US. Rhode Island RTK

US. California Proposition 65

International Inventories (Not available)

Country (s) or Region	Inventory Name	On Inventory (Yes/No)

Section 16. Other Information, Including date of preparation or last revision

Issue Date: 5/7/15

Version: 1

HMIS Ratings

Health: 3

Flammability: 0
Physical Hazard: 0

NFPA Ratings:

Health: 3
Flammability: 0
Physical Hazard: 0

Disclaimer: The Data Contained in this Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to ensure his employees are properly informed and advised of all safety precautions required. The information is furnished for the compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use of dissemination of all or part of this information for any other purpose is prohibited by law.

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

February 18, 2025

John Feighner
Hero BX Alabama, LLC
1540 east Lake Road
Erie, PA 16511

RE: Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Dear John Feighner:

Enclosed are the analytical results for sample(s) received by the laboratory on January 27, 2025. This report is a summary of the results based upon our understanding of your data quality objectives. Please contact us if itemized quality control results are needed. These results relate only to the samples included in this report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge
- Pace Analytical Services - New Orleans
- Pace Analytical Services - Allen

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Simpson

Cindy Simpson
cindy.simpson@pacelabs.com
(205)614-6630
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

CERTIFICATIONS

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Pace Analytical Services New Orleans
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 2000662023-7
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Texas Commission on Env. Quality (NELAC): T104704405-23-18
U.S. Dept. of Agriculture Foreign Soil Import: 525-23-117-89728

Pace Analytical Services Dallas
400 West Bethany Dr Suite 190, Allen, TX 75013
Texas Certification T104704232-20-32
Florida Certification #: E871118
EPA# TX00074
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647
Oklahoma Certification #: 8727
Louisiana Certification #: 30686
Iowa Certification #: 408

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

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(205) 614-6630

SAMPLE ANALYTE COUNT

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20344100001	DSN001Q	EPA 5030B/8015C	SMR	2	PASI-BR
		EPA 200.7	AJS	1	PASI-N
		EPA 624.1	JRP	8	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		SM 2540D 2011	JTB	1	PASI-N
		SM 5210B	TJG	1	PASL-AT
		40CFR PART 432.2	TAE	1	PASI-N
		EPA 351.2	DS	1	PASI-N
		EPA 365.4	DS	1	PASI-N
		SM 4500-NO3 F	JLH	1	PASI-N
		SM 5220D	JLH	1	PASI-N
		SM 5310B	JLH	1	PASI-N
20344100002	DSN002Q	EPA 5030B/8015C	SMR	2	PASI-BR
		EPA 200.7	AJS	1	PASI-N
		EPA 624.1	JRP	8	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		SM 2540D 2011	JTB	1	PASI-N
		SM 5210B	SKW	1	PASL-AT
		40CFR PART 432.2	TAE	1	PASI-N
		EPA 351.2	DS	1	PASI-N
		EPA 365.4	DS	1	PASI-N
		SM 4500-NO3 F	JLH	1	PASI-N
		SM 5220D	JLH	1	PASI-N
		SM 5310B	JLH	1	PASI-N
20344100003	DSN003Q	EPA 5030B/8015C	SMR	2	PASI-BR
		EPA 200.7	AJS	1	PASI-N
		EPA 624.1	JRP	8	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		SM 2540D 2011	JTB	1	PASI-N
		SM 5210B	SKW	1	PASL-AT
		40CFR PART 432.2	TAE	1	PASI-N
		EPA 351.2	DS	1	PASI-N
		EPA 365.4	DS	1	PASI-N
		SM 4500-NO3 F	JLH	1	PASI-N

REPORT OF LABORATORY ANALYSIS

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Tuscaloosa, AL 35405
(205) 614-6630

SAMPLE ANALYTE COUNT

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5220D	JLH	1	PASI-N
		SM 5310B	JLH	1	PASI-N
20344100004	DSN004Q	EPA 5030B/8015C	SMR	2	PASI-BR
		EPA 200.7	AJS	1	PASI-N
		EPA 624.1	JRP	8	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		EPA 1664B, 2010	TMO	1	PASI-N
		SM 2540D 2011	JTB	1	PASI-N
		SM 5210B	SKW	1	PASL-AT
		40CFR PART 432.2	TAE	1	PASI-N
		EPA 351.2	DS	1	PASI-N
		EPA 365.4	DS	1	PASI-N
		SM 4500-NH3 G	CDL	1	PASI-N
		SM 4500-NO3 F	JLH	1	PASI-N
		SM 5220D	JLH	1	PASI-N
		SM 5310B	JLH	1	PASI-N
20344100005	Trip Blank	EPA 624.1	JRP	34	PASI-N

PASI-BR = Pace Analytical Services - Baton Rouge
PASI-N = Pace Analytical Services - New Orleans
PASL-AT = Pace Analytical Services - Allen

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

ANALYTICAL RESULTS

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Sample: DSN001Q **Lab ID: 20344100001** Collected: 01/27/25 07:35

Parameters	Results	Units	Report Limit	DF	Qualifiers
Gasoline Range Organics	ND	mg/L	0.10	1	
4-Bromochlorobenzene (S)	**102**	%.	70-130	1	
Iron	**369**	ug/L	50.0	1	
Benzene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
m&p-Xylene	ND	ug/L	10.0	1	
o-Xylene	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	**101**	%.	82-118	1	
Toluene-d8 (S)	**99**	%.	81-120	1	
Dibromofluoromethane (S)	**103**	%.	77-123	1	
Oil and Grease	ND	mg/L	5.0	1	
Total Petroleum Hydrocarbons	ND	mg/L	5.0	1	
Total Suspended Solids	**13.9**	mg/L	2.5	1	
BOD, 5 day	**1.19**	mg/L	1.00	1	
Nitrogen	**1.1**	mg/L	0.15	1	
Nitrogen, Kjeldahl, Total	**0.87**	mg/L	0.15	1	
Phosphorus	**0.25**	mg/L	0.10	1	
Nitrogen, NO2 plus NO3	**0.19**	mg/L	0.050	1	
Chemical Oxygen Demand	**12.0**	mg/L	10.0	1	
Total Organic Carbon	**3.6**	mg/L	1.0	1	

Sample: DSN002Q **Lab ID: 20344100002** Collected: 01/27/25 07:49

Parameters	Results	Units	Report Limit	DF	Qualifiers
Gasoline Range Organics	ND	mg/L	0.10	1	
4-Bromochlorobenzene (S)	**103**	%.	70-130	1	
Iron	**685**	ug/L	50.0	1	
Benzene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
m&p-Xylene	ND	ug/L	10.0	1	
o-Xylene	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	**101**	%.	82-118	1	
Toluene-d8 (S)	**99**	%.	81-120	1	
Dibromofluoromethane (S)	**103**	%.	77-123	1	
Oil and Grease	ND	mg/L	5.1	1	P1
Total Petroleum Hydrocarbons	ND	mg/L	5.1	1	
Total Suspended Solids	**13.4**	mg/L	2.5	1	
BOD, 5 day	**1.48**	mg/L	1.00	1	
Nitrogen	**1.2**	mg/L	0.15	1	
Nitrogen, Kjeldahl, Total	**0.82**	mg/L	0.15	1	
Phosphorus	**1.2**	mg/L	0.10	1	
Nitrogen, NO2 plus NO3	**0.33**	mg/L	0.050	1	
Chemical Oxygen Demand	**11.0**	mg/L	10.0	1	
Total Organic Carbon	**3.8**	mg/L	1.0	1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

ANALYTICAL RESULTS

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Sample: DSN003Q **Lab ID: 20344100003** Collected: 01/27/25 08:10

Parameters	Results	Units	Report Limit	DF	Qualifiers
Gasoline Range Organics	ND	mg/L	0.10	1	
4-Bromochlorobenzene (S)	**100**	%.	70-130	1	
Iron	**394**	ug/L	50.0	1	
Benzene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
m&p-Xylene	ND	ug/L	10.0	1	
o-Xylene	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	**101**	%.	82-118	1	
Toluene-d8 (S)	**100**	%.	81-120	1	
Dibromofluoromethane (S)	**102**	%.	77-123	1	
Oil and Grease	ND	mg/L	5.1	1	P1
Total Petroleum Hydrocarbons	ND	mg/L	5.1	1	
Total Suspended Solids	**10.8**	mg/L	2.5	1	
BOD, 5 day	**1.33**	mg/L	1.00	1	
Nitrogen	**0.63**	mg/L	0.15	1	
Nitrogen, Kjeldahl, Total	**0.51**	mg/L	0.15	1	
Phosphorus	**0.24**	mg/L	0.10	1	
Nitrogen, NO2 plus NO3	**0.12**	mg/L	0.050	1	
Chemical Oxygen Demand	**30.0**	mg/L	10.0	1	
Total Organic Carbon	**3.8**	mg/L	1.0	1	

Sample: DSN004Q **Lab ID: 20344100004** Collected: 01/27/25 08:37

Parameters	Results	Units	Report Limit	DF	Qualifiers
Gasoline Range Organics	ND	mg/L	0.10	1	
4-Bromochlorobenzene (S)	**104**	%.	70-130	1	
Iron	**304**	ug/L	50.0	1	
Benzene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
m&p-Xylene	ND	ug/L	10.0	1	
o-Xylene	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	**103**	%.	82-118	1	
Toluene-d8 (S)	**100**	%.	81-120	1	
Dibromofluoromethane (S)	**104**	%.	77-123	1	
Oil and Grease	ND	mg/L	5.0	1	
Total Petroleum Hydrocarbons	ND	mg/L	5.0	1	
Total Suspended Solids	**13.3**	mg/L	2.5	1	
BOD, 5 day	**1.47**	mg/L	1.00	1	
Nitrogen	**0.50**	mg/L	0.15	1	
Nitrogen, Kjeldahl, Total	**0.35**	mg/L	0.15	1	
Phosphorus	**0.22**	mg/L	0.10	1	
Nitrogen, Ammonia	ND	mg/L	0.10	1	
Nitrogen, NO2 plus NO3	**0.15**	mg/L	0.050	1	
Chemical Oxygen Demand	**17.0**	mg/L	10.0	1	
Total Organic Carbon	**3.7**	mg/L	1.0	1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

ANALYTICAL RESULTS

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

Sample: Trip Blank **Lab ID: 20344100005** Collected: 01/27/25 08:37

Parameters	Results	Units	Report Limit	DF	Qualifiers
Benzene	ND	ug/L	5.0	1	
Bromodichloromethane	ND	ug/L	5.0	1	
Bromoform	ND	ug/L	5.0	1	
Bromomethane	ND	ug/L	5.0	1	
Carbon tetrachloride	ND	ug/L	5.0	1	
Chlorobenzene	ND	ug/L	5.0	1	
Chloroethane	ND	ug/L	5.0	1	
2-Chloroethylvinyl ether	ND	ug/L	20.0	1	c3
Chloroform	ND	ug/L	5.0	1	
Chloromethane	ND	ug/L	5.0	1	
Dibromochloromethane	ND	ug/L	5.0	1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	
1,1-Dichloroethane	ND	ug/L	5.0	1	
1,2-Dichloroethane	ND	ug/L	5.0	1	
1,1-Dichloroethene	ND	ug/L	5.0	1	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1	
1,2-Dichloropropane	ND	ug/L	5.0	1	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1	
Ethylbenzene	ND	ug/L	5.0	1	
Methylene Chloride	ND	ug/L	5.0	1	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	
Tetrachloroethene	ND	ug/L	5.0	1	
Toluene	ND	ug/L	5.0	1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	
Trichloroethene	ND	ug/L	5.0	1	
Trichlorofluoromethane	ND	ug/L	5.0	1	
Vinyl chloride	ND	ug/L	5.0	1	
4-Bromofluorobenzene (S)	**101**	%.	82-118	1	
Toluene-d8 (S)	**102**	%.	81-120	1	
Dibromofluoromethane (S)	**100**	%.	77-123	1	

Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

QUALIFIERS

Project: Moundville - Quarterly AL00269
Pace Project No.: 20344100

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

ANALYTE QUALIFIERS

P1	Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.
c3	Analysis of 2-chloroethyl vinyl ether was performed from a sample that was field preserved to pH < 2 with HCl. Acid preservation is not allowed for this parameter by the test method or for NPDES compliance per 40CFR Part 136.

Pace® Location Requested (City/State):
Pace Analytical Tuscaloosa
1168 Whigham Place, Tuscaloosa, AL 35401

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 20344100

20344100

Company Name:	Hero BX Alabama, LLC -WW	Contact/Report To:	John Feighner
Street Address:	1540 east Lake Road Erie, PA 16511	Phone #:	814-528-9238
		E-Mail:	jfeighner@herobx.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Moundville - Quarterly AL0026921	Invoice To:	Accounts Payable
		Invoice E-Mail:	snewell@herobx.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Alabama
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No		
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____	DW PWSID # or WW Permit # as applicable:	
	Date Results Requested:	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:	

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	1664 SGT-HEM, TPH	200.7 Metals, Total-Fe	2540D Total Suspended Solids	5210B BOD, 5 day	5220D COD	5310B TOC	624 Volatile Organics- BTEX	BR EPA GRO 8015C Mod Waters	HEM, Oil and Grease	TKN, TP, Phosphorus	Sample Comment
DSN001Q	WT		1-27-25	7:35 AM						X	X	X	X	X	X	X	X	X	X	
DSN002Q	WT		1-27-25	7:49 AM						X	X	X	X	X	X	X	X	X	X	
DSN003Q	WT		1-27-25	8:10 AM						X	X	X	X	X	X	X	X	X	X	
DSN004Q	WT		1-27-25	8:37 AM						X	X	X	X	X	X	X	X	X	X	X
Trip Blank	WT		1-27-25	8:37 AM												X				

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: **Cindy Simpson**
AcctNum / Client ID:
Table #:
Profile / Template: **11760**
Prelog / Bottle Ord. ID: **EZ 3147152**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) KAVIN LOWERY
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	tutm13	0.0	8.4	8.4	Y

Relinquished by/Company: (Signature)	Date/Time: 1-27-25 12:40 Pm	Received by/Company: (Signature)	Date/Time: 1.27.25 1240	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [✓] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

DC#_Title: ENV-FRM-ORB1-0093 v06 Sample Condition Upon Receipt Form
Version: 7 | Effective Date: 5/23/2024 | Issued by: Ormond Beach

Pace

Sample Condition Upon Receipt Form (SCUR)

WO#: 20344100

PM: CRS Due Date: 02/10/25
CLIENT: TU-HeroBXAL

Project #
Project Manager:
Client:

Date and Initials of person:
Examining contents: DBH
Verifying pH: ⌀

Thermometer Used: Evtm79 Date: 1.27.25 Time: 1241 Initials: ⌀

State of Origin: _____ ☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C	8.4 (Visual)	0.0 (Correction Factor)	8.4 (Actual)	☑Samples on ice, cooling process has begun.
Cooler #2 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #3 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #4 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #5 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #6 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Recheck for OOT °C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	Time: _____ Initials: _____

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐Commercial ☐Pace ☐Other: _____

Shipping Method: ☐Standard Overnight ☐First Overnight ☐Priority Overnight ☐Ground ☐International Priority ☐Other: _____

Billing: ☐Recipient ☐Sender ☐Third Party ☐Credit Card ☐Unknown

Tracking # _____

Custody Seal Present: ☐Yes ☑No **Seal properly placed and intact:** ☐Yes ☑No **Ice:** ☑Wet ☐Blue ☐Dry ☐None ☐Melted

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☑None ☐Other:

Samples shorted to lab: ☐Yes ☐No (If yes, complete the following)
Shorted Date: _____ **Shorted Time:** _____
Bottle Quantity / Type:

Chain of Custody:	**Present:** ☑Yes ☐No | **Filled Out:** ☑Yes ☐No ☐N/A | **Sampler Name:** ☑Yes ☐No ☐N/A			
	Relinquished To Pace: ☑Yes ☐No ☐N/A | **Sampling Date(s):** ☑Yes ☐No ☐N/A | **Sampling Time(s):** ☑Yes ☐No ☐N/A			
Samples Arrived within Hold Time.	☑Yes	☐No	☐N/A	Comments:
Rush Turnaround Requested on COC.	☐Yes	☑No	☐N/A	Comments:
Sufficient Volume.	☑Yes	☐No	☐N/A	Comments:
Correct Containers Used.	☑Yes	☐No	☐N/A	Comments:
Containers Intact.	☑Yes	☐No	☐N/A	Comments:
Sample Labels Match COC (Sample ID, Date/Time of Collection).	☐Yes	☑No	☐N/A	Comments: No dates
All containers needing acid / base preservation have been checked.	☑Yes	☐No	☐N/A	**Preservation Information** — Preservative: _____ Date: _____
All containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: Vials, Microbiology, O&G, PFAS	☑Yes	☐No	☐N/A	Lot / Trace: _____ Time: _____ Amount added (mL): _____ Initials: _____
Headspace in Volatile Vials? (>6mm):	☑Yes	☐No	☐N/A	trip blanks
Trip Blank Present:	☑Yes	☐No	☐N/A	

Comments / Resolutions (use back for additional comments): _____

Labeled by: DBH **Reviewed by:** _____ **Delivered by:** DBH