GASOLINE AND DIESEL FUEL SPECIFICATIONS

SUPPLIER INFORMATION: The product offered should conform to the basic requirements listed below. These requirements establish minimum performance levels and describe features deemed necessary to accomplish specific functions. Bidders are to indicate exactly what they are offering in the blank lines below. If the product meets a required item exactly as written, "COMPLY" may be used the space provided. If additional space is needed, please attach additional sheets. Any deviation that either exceeds or does not meet the minimum requirement should be noted as an exception and the exact offering described on the blank lines below the specification.

REQUIREMENTS

1. Low Sulfur Gasoline Ethanol. Minimum octane for regular grade is 87. State the minimum octane being bid. 87 Octane

2. Diesel fuel shall be ultra-low sulfur, #2 and shall meet ASTM specifications for #2 fuel.
   COMPLY

3. All products shall conform to State of Georgia specifications and comply with all federal, state, and local laws and regulations. COMPLY

4. Upon the completion of the contract period (which includes each subsequent renewal period), the supplier shall furnish NGFC participants an executed GUST 36 Product Supplier Confirmation for all products delivered during the contract period (sample page enclosed – **Page 21**) COMPLY

5. NGFC participants are responsible for the following taxes: Federal Excise LUST (Local Underground Storage Tank) Government Tax, Georgia Motor Fuel Tax, Georgia Prepaid State Tax, Georgia Environmental Assurance Fee (Georgia Underground Storage Tank), and Federal Environmental Recovery Fee unless otherwise specified.

BID PRICE SHALL NOT INCLUDE TAXES

REQUIREMENTS

6. Supplier(s) shall make deliveries as indicated by each participating NGFC agency.
   COMPLY

7. Transport truck deliveries should be made to locations indicated by participating agencies. Delivery shall be made by transport truck(s) for Diesel Fuel with a maximum delivery of 7,500 gallons minimum 7,200 gallons; and Unleaded Gasoline Fuel with a maximum delivery of 8,600 gallons minimum 8,000 gallons.

8. Tank wagon or split trailer load deliveries shall be made to the locations as indicated by the agencies. COMPLY

9. All deliveries shall be made Monday through Friday, excluding holidays, within 24 hours after receipt of individual orders. Each NGFC agency may modify these conditions in the information section. COMPLY

REQUIREMENTS

10. Bid price shall be bid based on a cost "plus" basis, specifying the lowest available price to be used, "plus" shall include all delivery costs and other fees. The discount or premium shall remain fixed during the term of the contract. The referenced price on the OPIS Rack is a variable base price that will be determined by each future edition of the OPIS Rack Report. The real price shall be recomputed upon issuance of each edition of the OPIS Rack Report. The recomputed price will become effective on orders made on or after issuance date of the edition. However, undelivered orders will not be affected. Weekly price shall be modified according to the rack average posting OPIS Rack Report. Daily OPIS Rack rate shall be calculated the same. Including the code references on the OPIS Rack Report, the applicable price shall include the lump sum of the cost of the product and delivery to the destinations listed in the information sections. The lump sum shall be subject to applicable taxes.(OPIS Rack Report is a Gasoline and Distillate Reseller Price Report prepared by Oil Price Information Service, 8701 Georgia Avenue, and Suite 800, Silver Springs, MD 20910.) COMPLY

11. In the times of fuel shortages, this contract must take precedence over all non-governmental contracts where the shortage is not a danger to the general public. The gasoline and diesel fuel purchased by a NGFC agency will be used for emergency and public safety vehicles. _____
COMPLY

REQUIREMENTS

12. The risk of loss remains with the successful supplier in the following situations: (a) until the product is delivered pursuant to the requirements and conditions stated herein; and (b) where the tender or delivery of the products so fails to conform to the contract as to give a right of rejection until the nonconformity is cured or accepted. COMPLY

13. The successful supplier(s) warrant that:

    (a) quality of product(s) delivered will be equal to or greater than quality specified;

    (b) The product(s) delivered to the NGFC shall conform to any affirmation of fact or promise by the successful supplier(s), or description of the product(s); and (c) the product(s) delivered to the NGFC shall be fit for the particular purpose for which the product(s) are required.

    COMPLY

14. **MATERIAL SAFETY DATA SHEETS**: MSDS should be included in duplicate with your bid.

    NOTE: All invoices shall have the bill of lading (BOL) attached.

Failure To Return This Page As Part Of Your Bid Document May Result In Rejection Of Bid.

opened @ 3pm 6/15/23 CB

BID SCHEDULE

****Total price will be based on (Weekly Discount/Mark-Up + price per gallon) x Estimated Annual Quantity not including taxes****

ITEM #	EST. ANNUAL QTY.	UNIT	DESCRIPTION	WEEKLY DISCOUNT/ MARK-UP	DAILY DISCOUNT/ MARK-UP	PRICE PER GALLON (OPIS)*	TOTAL**
1	15,799,062	Gal.	Diesel Fuel, ultra-low sulfur, #2 Full Transport Load Quantity	-0.0024	-0.0050	$1.22	19,236,937.89
2	3,629,094	Gal.	Diesel Fuel, ultra-low sulfur, #2 Tank Wagon Load Quantity	0.0750	0.0750	$1.22	4,699,676.73
3	11,686,222	Gal.	Low Sulfur Gasoline Ethanol Full Transport Load Quantity	-0.0072	-0.0100	$1.30	15,107,947.80
4	2,981,274	Gal.	Low Sulfur Gasoline Ethanol Tank Wagon Load Quantity	0.07800	0.0690	$1.30	4,108,195.57
5	40,000	Gal.	Diesel Exhaust Fluid	0.6000	0.6000	$1.79	95,600.00
						BID TOTAL	$ 43,248,357.99

*** For evaluation purpose only**

State cost of split deliveries $ 40.00 **This is for different location sites and does not apply to multiple tanks at one site. Primary site cannot be charged in fee.)**

State pump fee $ 65.00 **State short load fee $** 150.00 **(less than 7,200 gallons – Diesel; less than 8,000 gallons – Unleaded))**

North Georgia Fuel Cooperative requires pricing to remain firm for the duration of the initial term of the contract. Failure to hold firm pricing for the initial term of the contract will be sufficient cause for the NGFC to declare bid non-responsive. Contract to begin on August 31, 2017.

Unless otherwise noted, quoted prices will remain firm for four (4) additional years. **NGFC reserves the right to negotiate pricing/discounts for the additional renewal periods based on increased volumes from increased participation.**

If a percentage decrease will be part of this bid, please note this in the space provided.

1st renewal period No decrease **2nd renewal period** No decrease

3rd renewal period No decrease **4th renewal period** No decrease

COMPANY NAME James River Solutions

Failure To Return This Page As Part Of Your Bid Document May Result In Rejection Of Bid.

BID SCHEDULE (CONTINUED)

If a percentage increase will be a part of this bid, please note this in the space provided.

1st renewal period No increase **2nd renewal period** No increase

3rd renewal period No increase **4th renewal period** No increase

TERMINATION FOR CAUSE:
The NGFC and any of its participants may terminate this agreement for cause upon ten (10) days prior written notice to the Service Provider of the Service Provider's default in the performance of any term of this Agreement. Such termination shall be without prejudice to any of the NGFC and its participant's rights or remedies provided by law.

TERMINATION FOR CONVENIENCE:
The NGFC and its participants may terminate this Agreement for its convenience at any time upon 30 days written notice to the Service Provider. In the event of the NGFC and any of its participant's termination of this Agreement for convenience, the Service Provider will be paid for those services actually performed. Partially completed performance of the Agreement will be compensated based upon a signed statement of completion to be submitted by the Service Provider who shall itemize each element of performance.

TERMINATION FOR FUND APPROPRIATION
The NGFC and any of its participants may unilaterally terminate this Agreement due to a lack of funding at any time by written notice to the Supplier(s). In the event of the NGFC and its participant's termination of this Agreement for fund appropriation, the Supplier(s) will be paid for those services actually performed. Partially completed performance of the Agreement will be compensated based upon a signed statement of completion to be submitted by the Contractor which shall itemize each element of performance.

Certification of Non-Collusion in Bid Preparation _____ 5/3/23
Signature **Date**

In compliance with the attached specifications, the undersigned offers and agrees, if this bid is accepted by the Board of Commissioners within 90 days of the date of bid opening, to furnish any or all of the items upon which prices are bid, at the price set opposite each item, delivered to the designated point(s) within the time specified in the bid schedule.

Legal Business Name James River Solutions, LLC **Federal Tax ID** 32-0135618
(If your company is an LLC, you must identify all principals to include addresses and phone numbers in your submittal)

Address 10487 Lakeridge Parkway, Ashland, VA 23005

Does your company currently have a location within Gwinnett County? Yes ☐ **No** ☒ *JRS does have an office in Gainesville, GA and a fleet at the Doraville/Atlanta Terminal

Representative Signature _____ **Printed Name** Tracy Little

Telephone Number 804-399-8900 **Fax Number** 804-359-6307 **E-mail address** bbailey@jrpenergy.com / tracy@jrpenergy.com

PRODUCT SUPPLIER CONFIRMATION

State of Virginia

County of Hanover

Personally came Tracy Little, who being first sworn, on oath deposes and says as follows:

1) My name is Managing Partner and that I am the Managing Partner
(Title)

of James River Solutions, Product Supplier (Supplier)

to the USTs located at various locations throughout Gwinnett County
(Facility Name and Address)

2) That in my capacity of Managing Partner of Supplier, I am familiar
(Title)
with the books and records maintained in the regular course of Supplier's business, especially concerning the sale of petroleum and the collection of and payment by Supplier of Environmental Assurance Fees (EAFs) for participants in the Georgia Underground Storage Tank (GUST) Trust Fund to the State of Georgia.

3) That the records of Supplier show that EAFs were collected on all petroleum product delivered to

various locations throughout Gwinnett County
(Facility Name and Address)

and that all EAFs so collected were properly and timely remitted to its distributor, the state of Georgia for payment to the GUST Trust Fund or directly to the Gust Trust Fund as provided by the Underground Storage Tank Act and The Rules for Underground Storage Tank Management.

4) That I am aware that the Environmental Protection Division will rely on the representations made and information provided herein in determining whether Gwinnett County is a participant in the GUST Trust Fund for the facility located at multiple locations documented in the bid, and I further warrant and represent that Supplier's records of EAF collection and payment are available for inspection and audit by the employees or authorized agents of the Georgia Environmental Protection Division or State of Georgia.

(Signature)

Sworn to and subscribe before me this
3rd **Day of** May, **20** 23

Notary Public
My Commission Expires 1/31/25
(Seal)

BRIDGET ASHLEY BAILEY
NOTARY PUBLIC
REG. #7735428
MY COMMISSION EXPIRES
01/31/2025
COMMONWEALTH OF VIRGINIA

Failure to return this page as part of your bid document may result in rejection of bid

REFERENCES

Gwinnett County requests a minimum of three, (3) references where work of a similar size and scope has been completed.

1. Company Name Atlanta Public Schools

   Brief Description of Project Bulk delivery of gasoline and diesel fuel, mobile fueling, fuel cards

   Completion Date Ongoing

   Contact Person John Franklin

   Telephone 404-205-5500 Facsimile

   E-Mail Address jafranklin@atlanta.k12.ga.us

2. Company Name Hampton Roads Transit

   Brief Description of Project Bulk delivery of gasoline and diesel fuel; monitoring of tanks with SMARTank

   Completion Date Ongoing

   Contact Person Don Shea

   Telephone 757-222-6000 ext. 6826 Facsimile

   E-Mail Address dshea@hrtransit.org

3. Company Name Wake County Public Schools

   Brief Description of Project Bulk delivery of diesel at a fixed price

   Completion Date Ongoing

   Contact Person Andrew Chow

   Telephone 919.-694-7674 Facsimile

   E-Mail Address achow@wcpss.net

COMPANY NAME James River Solutions

GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

75 Langley Drive | Lawrenceville, GA 30046-6935
O: 770.822.8720 | F: 770.822.8735
GwinnettCounty.com

CODE OF ETHICS AFFIDAVIT

PLEASE RETURN THIS FORM COMPLETED WITH YOUR SUBMITTAL. SUBMITTED FORMS ARE REQUIRED PRIOR TO EVALUATION.

In accordance with Section 54-33 of the Gwinnett County Code of Ordinances the undersigned bidder/proposer makes the following full and complete disclosure under oath, to the best of their knowledge, of the name(s) of all elected officials whom it employs or who have a direct or indirect pecuniary interest in or with the bidder/proposer, its affiliates or its subcontractors:

1. James River Solutions
   Company Submitting Bid/Proposal

2. Please select one of the following:
   ☒ No information to disclose *(complete only section 4 below)*
   ☐ Disclosed information below *(complete section 3 & section 4 below)*

3. If additional space is required, please attach list:

Gwinnett County Elected Official Name	Gwinnett County Elected Official Name
Gwinnett County Elected Official Name	Gwinnett County Elected Official Name

4. BY: _____
   Authorized Officer or Agent Signature

   Tracy Little
   Printed Name of Authorized Officer or Agent

   Managing Partner
   Title of Authorized Officer or Agent of Contractor

Sworn to and subscribed before me this

3rd day of May, 20 23

Bridget Bailey
Notary Public

(seal)

BRIDGET ASHLEY BAILEY
NOTARY PUBLIC
REG. #7735428
MY COMMISSION EXPIRES
01/31/2025
COMMONWEALTH OF VIRGINIA

Note: See Gwinnett County Code of Ethics Ordinance EO2011, Sec. 54-33
The ordinance will be available to view in its' entirety at
GwinnettCounty.com

GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

75 Langley Drive | Lawrenceville, GA 30046-6935
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GwinnettCounty.com

CONTRACTOR AFFIDAVIT AND AGREEMENT
(THIS FORM SHOULD BE FULLY COMPLETED AND RETURNED WITH YOUR SUBMITTAL)

By executing this affidavit, the undersigned contractor verifies its compliance with The Illegal Reform Enhancements for 2013, stating affirmatively that the individual, firm, or corporation which is contracting with the Gwinnett County Board of Commissioners has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act, in accordance with the applicability provisions and deadlines established therein.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services or the performance of labor pursuant to this contract with the Gwinnett County Board of Commissioners, contractor will secure from such subcontractor(s) similar verification of compliance with the Illegal Immigration Reform and Enforcement Act on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the Gwinnett County Board of Commissioners at the time the subcontractor(s) is retained to perform such service.

316841
E-Verify * User Identification Number

May 2014
Date Registered

James River Solutions, LLC
Legal Company Name

10487 Lakeridge Parkway, Suite 100
Company Address

BY: Authorized Officer or Agent
(Contractor Signature)

5/3/23
Date

Tracy Little
Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
3rd DAY OF May, 2023

Notary Public
My Commission Expires:
1/31/25

For Gwinnett County Use Only:
Document ID #_____
Issue Date:_____
Initials:_____

* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is "E-Verify" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

BRIDGET ASHLEY BAILEY NOTARY PUBLIC REG. #7735428 MY COMMISSION EXPIRES 01/31/2025 COMMONWEALTH OF VIRGINIA

GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

75 Langley Drive | Lawrenceville, GA 30046-6935
O: 770.822.8720 | F: 770.822.8735
GwinnettCounty.com

May 3, 2023

Addendum #1
BL051-23
Purchase of Gasoline and Diesel Fuel on an Annual Contract

****The opening date has been postponed indefinitely. The solicitation is NOT canceled. A new opening date will be released in a future addendum.****

Thank you,

Casey Beauston
Purchasing Associate II

GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

75 Langley Drive | Lawrenceville, GA 30046-6935
O: 770.822.8720 | F: 770.822.8735
GwinnettCounty.com

June 9, 2023

Addendum #2
BL051-23
Purchase of Gasoline and Diesel Fuel on an Annual Contract

****The deadline to receive bids has been extended to 2:50pm on Thursday, June 15, 2023.****

Please see the below summation of questions and answers for the above solicitation.

Questions:

Q1. Please provide bill of ladings for all fuel grades on this solicitation.
A1. See attachment below.

Q2. Please provide a current invoice for all fuel grades on this solicitation.
A2. See attachment below.

Q3. Please provide tax exemptions/certificates.
A3. See attachment below.

Q4: Will bids be considered responsive if electronic signatures are used? (i.e. DocuSign)? Or are wet signatures required?
A4: If documents are signed electronically, a Certificate of Completion needs to be included.

Q5: Are there any reporting requirements? If yes, please describe them.
A5: Upon the completion of the contract period (which includes each subsequent renewal period), the supplier shall furnish NGFC participants an executed GUST 36 Product Supplier Confirmation for all products delivered during the contract period.

Q6: Can Gwinnett County provide each site's individual annual volume?
A6: Total volume was approximately 6.5 million gallons in 2022.

Q7: Are bonds required in any way?
A7: No.

Q8: On Page 10 of the bid package, the City of Marietta Schools Estimated Total Unleaded and Diesel Annual usage does not add up to the Total Annual Usage provided. Could you confirm which is correct?
A8: Gwinnett County does not have access to this information. Please reach out to City of Marietta Schools.

Q9: On Page 12 of the bid package, Fulton County Information has the same Estimated Total Unleaded/Diesel Annual Usage and Total Fuel Usage as the Fulton County Fire Stations. Could you please confirm if this is correct?

A9: Gwinnett County does not have access to this information. Please reach out to Fulton County Government.

Q10: On Page 12 of the bid package, Fulton County Schools Estimated Total Unleaded and Diesel do not add up to the Total Annual Fuel Usage. Could you please confirm which is correct?

A10: Gwinnett County does not have access to this information. Please reach out to Fulton County Public Schools.

Q11: Will the cooperative accept a bid for only daily pricing? Weekly pricing in today's market is incredibly volatile and will not give each entity the best value when buying fuel.

A11: Daily is preferred.

Q12: Does Gwinnett County have an OPIS subscription to verify invoices? If not, does Gwinnett County intend to purchase an OPIS subscription if they do not have one to verify invoice accuracy?

A12: Yes, Gwinnett County has an OPIS subscription.

Q13: Has there ever been an audit of Gwinnett County's/NGFC member's fuel invoices?

A13: Yes.

Q14: Does Gwinnett County plan on auditing their fuel invoices in the near future?

A14: Yes.

Q15: Has any current provider ever been found in breach of contract?

A15: No.

Q16: Has Gwinnett County ever terminated a fuel contract for cause or convenience?

A16: No.

Q17: Are any NGFC members interested in a fixed price program, effectively locking in their fuel budgets?

A17: No.

Q18: Which vendor(s) is/are on the current fuel contract?

A18: James River Solutions, Colonial Oil, and Petroleum Traders.

Q19: Can Gwinnett County provide the bid tabulations from the current contract?

A19: Please see below attachments.

Q20: Do bidders have to bid on all products/line items to be responsive? Or can vendors just bid the full transport for diesel and gasoline?

A20: All items.

Q21: If the bid schedule is calculated using the weekly discount/markup + price per gallons x estimated annual quantity, what is the significance of the daily discount/markup field?

A21: It is the difference between the OPIS rack average and invoiced price.

Q22: In Section 10 of the requirements, it states that the bid shall be based on a cost "plus" basis. When referring to "cost" is this supposed to represent the OPIS posted price and is "plus" representing our markup/discount which includes all delivery costs and fees?

A22: Correct.

Q23: Section 10 of the requirements states that the real price shall be based on the OPIS rack report and pricing will be modified according to the average posting OPIS rack report. The OPIS weekly and OPIS daily are mentioned. What OPIS city is this based on? What report will be used to determine the base price, the Daily OPIS average for the day of delivery or the Weekly OPIS average?

A23: Atlanta is the City for price reporting purposes.

Q24: If the weekly OPIS average is used, what is the start and end date for each week's pricing and how is the weekly average determined? I am not aware of any weekly reports that OPIS publishes so is someone internally with Gwinnett County calculating the weekly average based on the previous weeks daily averages or are you using the fuel pricing published by the state of Georgia DOAS website? If the DOAS fuel pricing is used is there a specific terminal city we are to use for every delivery or do we just use the price that coincides with the city that we pulled the fuel from?

A24: Daily is preferred.

Q25: On Page 21, Bid Schedule, it states Contract to begin August 31, 2017. Can Gwinnett County confirm the contract will actually begin on June 1, 2023?

A25: It is anticipated the initial term will start September 1st but is subject to Board of Commissioners approval.

Q26: Will a metered bill of lading from the terminal be accepted in lieu of a metered delivery ticket for transport deliveries?

A26: Providing both is preferred.

Q27: The Cobb County School District and BOC states they wish to pressure test all tanks belonging to the School District during the month of July; will the awarded contractor be responsible for performing those tests?

A27: Gwinnett County does not have access to this information. Please reach out to Cobb County Government and Cobb County School District.

Q28: The Atlanta Public Schools system states they wish to pressure test all tanks belonging to APS during the month of July; will the awarded contractor be responsible for performing those tests?

A28: Gwinnett County does not have access to this information. Please reach out to Atlanta Public Schools.

Q29: DeKalb County BOE site "industrial Mountain Fuel Depot" states that there are special truck access instructions. Please elaborate on this process.

A29: Gwinnett County does not have access to this information. Please reach out to DeKalb County BOE.

Q30: Does the Cobb County BOE automatically deduct 0.0100 from the price when Net 10 payment terms are used?

A30: Gwinnett County does not have access to this information. Please reach out to Cobb County Government.

Q31: Will there be a virtual bid opening option for this bid?

A31: No.

Q32: Given the two pricing options, when does the entity indicate if they want the daily price or the weekly price?

A32: Daily is preferred.

Q33: Are entities able to pick between daily or weekly pricing throughout the life of the contract?

A33: Daily is preferred.

Q34: Does Gwinnett County want to be priced off the OPIS Gross End of Day (6:00pm Posting) Average?
A34: OPIS Daily Rack Average.

Q35: Does Gwinnett County want to be priced off the OPIS Gross Contract (10:00am Posting) Average?
A35: OPIS Daily Rack Average.

Q36: Will the County be accepting hand-delivered bids?
A36: Yes. Bids may be hand-delivered or mailed. No electronic bids will be accepted.

Q37: Since the Co-op covers a vast geographic area, will Gwinnett County consider breaking up pricing by county? Having an average cost of freight will inflate the price of the metro Atlanta locations.
A37: No.

Q38: Please provide the tank sizes and usage for each of the entities requesting Diesel Exhaust Fluid.
A38: 400-gallon tanks that are filled.

Q39: Diesel Exhaust Fluid does not have an OPIS posting. Industry standard is a cost-plus structure or a monthly price. Please indicate how Gwinnett County would like this product to be bid.
A39: Bid a discount/markup to.

Q40: Can counties pick whether they want to utilize the primary, secondary, or tertiary supplier?
A40: Yes.

Q41: How many gallons of diesel were purchased by the NGFC in 2022?
A41: Gwinnett County does not currently have access to this information.

Q42: How many gallons of gasoline were purchased by the NGFC in 2022?
A42: Gwinnett County does not currently have access to this information.

Q43: Is the NGFC allowing other entities to join this contract throughout its life?
A43: Yes, if all parties agree.

Q44: If the NGFC is allowing other entities to join during the contract, can the awarded vendor adjust pricing if outside of the delivery range of service for the existing locations?
A44: Please see A43.

Q45: Please provide a current gas invoice, a current diesel invoice, and a current Diesel Exhaust Fluid invoice.
A45: Please see attached.

Q46: Please provide a current gas Bill of Lading, and current diesel Bill of Lading.
A46: Please see attached.

Q47: On the bid schedule, where it asks for the state short load fee, does this pertain to transport loads that would be less than the minimum notated?
A47: Yes.

Q48: Please provide a list of the entities that purchased off this contract in 2022.
A48: The North Georgia Fuel Cooperative includes but is not limited to: DeKalb County and BOE, Cobb County and BOE, Gwinnett County and BOE, Jackson County, Fulton County, Forsyth County, Dawson County, Rockdale County, City of Atlanta, City of Gainesville, City of Marietta, City of Covington, and City of Smyrna.

Q49: Can this scope of work be bid on as a team?

A49: No.

Q50: Is the agency open to multiple awards for this purchasing contract?
A50: Yes. Award will be made to the supplier(s) submitting the lowest responsive and responsible bid. Gwinnett County reserves the right to award in its best interest.

Q51: When supplying a bid for the locations within the County, can the firm send in a bid for a portion of the scope, or will it need to be the entire county? For example: on page 9, City of Gainesville has Alta Vista and Bradford Street. Can the firm submit for Alta Vista and exclude Bradford, or will the bid need to be for both locations?
A51: Speaking for Gwinnett County, all locations.

Q52: Is OPIS the only pricing system that can be used or will the department except any alternative?
A52: OPIS only for gas and diesel.

Q53: On Page 21, the solicitation mentions "Total price will be based on (Weekly Discount/Mark-Up + price per gallon) x Estimated Annual Quantity not including taxes." Can the County please clarify what this means? Does this pertain to carrier or product pricing?
A53: OPIS rack average price.

Q54: Does product need to be priced for the week when invoiced?
A54: Product needs to be priced for the week delivered.

Q55: Does the County prefer the bid to have freight submitted with product pricing, or should freight be a separate line item?
A55: Total price per gallon.

Q56: Can you provide a copy/example of an invoice (specifically for Jackson County)?
A56: Gwinnett County does not have access to this information. Please reach out to Jackson County Government.

Q57: Does it matter from which terminal product is lifted?
A57: Whichever has the best pricing.

Q58: For bidding on DEF Fluid, I was unaware there is OPIS pricing on DEF Fluids. Does Gwinnett County want bidders to put CPG in that box? Or how would you like us to calculate the pricing for that item?
A58: There is not an OPIS index for DEF; just bid a percent above/below retail price.

Q59: When will this bid be awarded?
A59: BL051-23 will be awarded upon Board of Commissioners approval, with a start date of September 1, 2023.

Q60: When will bid tabulations be available after bid opening?
A60: Upon contract award, bid tabulations will be posted on Gwinnett County's website, unofficial responses will be posted the day after the bid opening.

Q61: Is there a conference call, zoom meeting or phone call opportunity to listen to bid openings?
A61: No.

Q62: Do certain locations require tank wagons or transport trucks?
A62: All of Gwinnett County requires transport trucks.

Q63: What date was used for pricing on the previous years' bid tabulations?
A63: The bid tab is for illustrative purposes to show discount to OPEC price.

Q64: Can BOL and invoice examples be provided from Colonial Oil, James River, and Petroleum Traders?
A64: See attachments.
Q65: Are any additives required?
A65: No.

Q66: Are bidders required to bid on all line items?
A66: It is anticipated to award to a primary, secondary, and tertiary vendor for all items.

Q67: Can Gwinnett County provide a recent invoice and delivery ticket?
A67: See attachments.

Q68: Of the list of cooperative agencies identified, how many of those are active on the existing contract? Is the volume listed on the bid for each agency reflective of what was actually purchased on this contract that exists now?
A68: All are active; volumes reflect gallons purchased during the most recent year of the contract.

Q69: The bid schedule identifies both transport and tank wagon pricing. Can a bidder only offer on either transport or tank wagon and not both, and still be considered for award?
A69: Bidder must at least provide full transport price.

Q70: Is the option to renew this contract for the one-year renewals mutual or unilateral?
A70: Mutual.

Q71: Are there any MWBE requirements for this solicitation?
A71: Currently, there is no preference policy or program for this contract.

Q72: Are there any agencies or members that pay via P card or other credit card payments?
A72: Unknown, but unlikely.

Q73: Will there be multiple awards, or will one company receive the award?
A73: Gwinnett County reserves the right to award in its best interest, whether to multiple suppliers or a single supplier.

Q74: Is there any portion set aside for small businesses or MBE minority-owned suppliers?
A74: Currently, there is no preference policy or program for this contract.

Q75: What are the Purchasing office hours for accepting delivery of bid packages?
A75: The business hours are Monday through Friday 8:00am – 5:00pm.

Attachments:

- Gwinnett County Government Tax Exempt Form
- Petroleum Traders Invoice/Bill of Lading package
- JRS Invoice/Bill Of Lading package
- Delivery Ticket example (from Augustina 4.12.23 3:55pm)
- Current contract bid tabulations

This addendum should be signed in the space provided below and returned with your bid. Failure to do so may result in your bid deemed non-responsive.

Thank you,

Casey Beauston
Purchasing Associate II

Company Name James River Solutions

Authorized Representative

SECTION 1: IDENTIFICATION	
(a) PRODUCT IDENTIFIER: Gasoline (all grades)	(b) OTHER MEANS OF IDENTIFICATION: Regular Unleaded Gasoline, Midgrade Unleaded Gasoline, Premium Unleaded Gasoline, Pre-certified Gasoline.
	Product Group: Liquid **Chemical Family:**

(c) Identified Use: Fuel

(d) Manufacturer:

Colonial Pipeline Company. ● 1185 Sanctuary Parkway Suite 100 ● Alpharetta, GA 30009 ● 678-762-2200

Fax: 678-762-2466 ● Email: info@colpipe.com ● Website: www.colpipe.com

(e) EMERGENCY PHONE NUMBER: US: 1-800-424-9300● INTL: +1-703-527-3887● 24 hours/day, 7 days/week

SECTION 2: HAZARDS IDENTIFICATION

The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.

Human Health Hazards

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Acute Toxicity (Oral)	N/C	--	--	--	--
Acute Toxicity (Dermal)	N/C	--	--	--	--
Acute Toxicity (Inhalation)	3		Danger	Toxic if inhaled	P261, P271, P304/P340, P312, P403, P405, P501
Skin Corrosion/Irritation	2		Warning	Causes skin irritation	Wear protective gloves P264, P280, P302/P352, P332/P313, P362/P364
Eye Damage/Irritation	2A		Warning	Causes serious eye irritation	P264, P280, P305, P337/P313
Respiratory Sensitization	N/C	--	--	--	--
Skin Sensitization	N/C	--	--	--	--
Germ Cell Mutagenicity	1B		Danger	May cause genetic defects	Wear protective clothing P201, P202, P280, P308, P313, P405, P501

SECTION 2: HAZARDS IDENTIFICATION

The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.

Human Health Hazards

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Carcinogenicity	1A		Warning	Suspected of causing cancer	P201, P202, P280, P308, P313, P405, P501
Reproductive Toxicity	N/C	--	--	--	--
Specific Target Organ Toxicity (STOT) Single-Exposure	1		Danger	May cause damage to central nervous system through prolonged or repeated exposure.	Do not eat, drink, or smoke when using this product, P264, P301, P310, P405, P501
Specific Target Organ Toxicity (STOT) Repeated or Prolonged Exposure	2		Warning	May cause damage to central nervous system through prolonged or repeated exposure.	Get medical advice/attention if you feel unwell P260, P314, P501
Aspiration Hazard	1		Danger	May be fatal if swallowed and enters airways	If swallowed: Immediately call a poison center P301, P310, P405, P501

Physical Hazards

Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
Explosives	N/A	-	-	-	-
Flammable Gases	N/A	-	-	-	-
Flammable Aerosols	N/A	-	-	-	-
Oxidizing Gases	N/A	-	-	-	-
Gases Under Pressure	N/A	-	-	-	-
Flammable Liquids	1		Danger	Extremely flammable liquid and vapor	P210, P233, P240, P241, P242, P243, P303/361, P370/378, P403, P501
Flammable Solids	N/A	-	-	-	-
Self-reactive Substances and Mixtures	N/A	-	-	-	-
Substances and mixtures which react with water to emit flammable gases	N/A	-	-	-	-

Physical Hazards					
Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
Oxidizing Liquids	N/A	-	-	-	-
Oxidizing Solids	N/A	-	-	-	-
Organic Peroxides	N/A	-	-	-	-
Corrosive to Metals	N/A	-	-	-	-

Health Hazard Precautionary Statement	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/eye protection/face protection.
P301	If swallowed:
P310	Immediately call a poison center or doctor.
P304	If inhaled:
P340	Remove person to fresh air and keep comfortable for breathing.
P305	If in eyes: Rinse cautiously with water for several minutes.
P351	Remove contact lenses.
P338	Continue rinsing.
P337	If eye irritation persists.
P313	Get medical advice/attention.
P308	If exposed or concerned:
P312	Call a poison center or doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P403	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/container to an approved facility.

Physical Hazard Precautionary Statement	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P235	Keep cool.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.

Physical Hazard Precautionary Statement	
P264	Wash all body parts in contact with material thoroughly after handling.
P280	Wear protective gloves/eye protection/face protection.
P303	If on skin or hair:
P352	Wash with plenty of water
P353	Rinse skin with water/shower.
P361	Remove/take off immediately all contaminated clothing.
P362/P364	Take off contaminated clothing and wash it before reuse.
P332/P313	If skin irritation occurs: Get medical advice/attention.
P370	In case of fire.
P378	Use dry chemical, carbon dioxide, or foam for extinction.
P403	Store in a well-ventilated place.
P501	Dispose of contents/container to an approved disposal facility.

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Environmental Hazards					
Acute Toxicity to the Aquatic Environment	3	-	-	Harmful to Aquatic Life	-
Chronic Toxicity to the Aquatic Environment	2		-	Toxic to aquatic life with long lasting effects	-

(d) Unknown toxicity: N/A

(e) Unknown ecotoxicity: N/A

Medical conditions which are generally recognized as being aggravated by exposure: Individuals with pre-existing central nervous system disease, chronic respiratory diseases, skin or eye disorders, or impaired liver or kidney function may be at increased risk from exposure. Individuals with pre-existing central nervous system disease, chronic respiratory diseases, skin or eye disorders, or impaired liver or kidney function may be at increased risk from exposure.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS			
(a) Chemical name (b) (Common name and synonyms)	**(c) CAS No.**	**(c) EC No.**	**(b) % Weight***
Gasoline (natural)	8006-61-9	232-349-1	100%
Components			
Xylene	1330-20-7	215-535-7	10 – 30 %
Toluene	108-88-3	203-625-9	10 – 30 %
n-Hexane	110-54-3	203-777-6	1 – 5 %
Benzene	71-43-2	200-753-7	1 – 5 %
1,2,4-Trimethylbenzene	95-63-6	202-436-9	1 – 5 %
Ethylbenzene	100-41-4	202-849-4	1 – 5 %
Naphthalene	91-20-3	202-049-5	1 - 5 %
Ethanol	64-17-5	200-578-6	0 – 10 %

SECTION 4: FIRST AID MEASURES

(a) Description of necessary measures:

INHALATION:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Ger medical attention. If unconscious, place in recover position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
INGESTION:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at res in. apposition comfortable for breathing. If material has been swallowed and the exposed person in conscious give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do no induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
SKIN CONTACT:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
EYE CONTACT:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes: Get medical advice/attention.

(b) Most important symptoms/effects:

- **Acute:** Harmful if inhaled. Headache, drowsiness, loss of mental alertness and coordination, dizziness, nausea. Serious eye and skin irritation. Harmful if ingested. Mouth throat, and stomach irritation. May be fatal if swallowed and enters airways.
- **Delayed:** Pain or irritation, watering eyes, local inflammation, nausea or vomiting, skeletal malformations, reduced fetal weight, increase in fetal deaths

(c) Indication of immediate medical attention and special treatment: Significant over-exposure

Notes to physician: Treat symptomatically and supportively. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 5: FIRE FIGHTING MEASURES

(a) Suitable extinguishing media: Foam, dry chemical, carbon dioxide, water spray can cool the fire but may not extinguish the fire.

Unsuitable extinguishing media: High volume water jet. It will spread the fire.

(b) Specific hazards arising from the chemical: Highly flammable liquid and vapor. It can be ignited by heat, spark, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, and pagers which have not been certified as intrinsically safe). Vapors can travel considerable distances to spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors can be heavier than air and can accumulate in low-lying areas. If container is not properly cooled, it can rupture in the heat of a fire. Hazardous combustion/decomposition products may be released by this material when exposed to heat or fire. Use caution and wear appropriate PPE, including respiratory protection.

(c) Special protective equipment and precautions for fire-fighters: Shut off flow immediately if it can be done safely. Isolate the area from personnel. Keep personnel upwind from fire. Fire fighters should use appropriate SCBA while in close proximity to fire and vapors coming from product. Move personnel upwind of any smoke or vapors.
(d) Flammability/Explosivity: NFPA RATING Hazard Class:

Health = 1
Fire = 3
Instability = 0
(0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

(e) Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion may produce carbon monoxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, Protective equipment, and Emergency procedures: No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk though spilled material. Gasoline is extremely flammable. Stay upwind if possible. Eliminate all ignition sources. Avoid inhalation of vapors and spray mist. Avoid contact with skin and eyes. Wear appropriate PPE including respiratory protection as needed. On hard surfaces, spilled material may create a slipping hazard.

Federal regulations (29 CFR 1910) specify medical surveillance programs for certain exposures to benzene. Additionally, in an emergency situation, exposed employees may need to provide a urine sample at the end of shift for urine phenol.

(b)Methods and materials for containment and cleaning up: Remove sources of ignition. Beware of explosion danger. Stop flow of product, if it is safe to do so. Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended if possible. Dike the spilled material. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water, remove with appropriate methods (e.g., skimming, booms, or absorbent boom). In the case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations. Recommended measures are based on the most likely spill scenarios for this material; however, local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

Environmental Precautions: Prevent product from entering drains and sanitary sewers. Prevent further leakage or spillage if safe to do so. If product impacts rivers, lakes, drains, or any other body of water, contact appropriate authorities. Consult with an environmental professional for the federal, state, and local cleanup and reporting requirements.

SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling: Keep away from ignition sources such as heat/sparks/open flame. Take precautionary measures against static discharge. Non-sparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink, or smoke when using this product. Do not breathe vapors or mists. Use only outdoors or in well-ventilated area. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Gasoline is extremely flammable. It may vaporize easily at ambient temperatures. The vapor may be heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low-lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static-electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

Static Accumulation Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding of tanks, transfer piping, and storage tank level floats are necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. Special care should be given to ensure that slow load procedures for "switch loading" are followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). For more information, refer to OSHA Standard 29 CFR 1910.106 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

(b) Conditions for safe storage, including any incompatibilities: May be incompatible with strong oxidizing agents such as nitric acid, peroxides, and perchlorates. Potentially Incompatible Absorbents: None identified.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Components	**(a) OSHA PEL[1]**	**(a) ACGIH TLV[2]**	**(a) Manufacturer REL[3]**	**(a) IDLH[4]**
Xylene	100 ppm	100 ppm (TWA) 150 ppm (STEL)	NE	900 ppm
Toluene	200 ppm (TWA) 300 ppm (C)	20 ppm (TWA)	NE	500 ppm
n-Hexane	500 ppm (TWA)	50 ppm (TWA) Skin	NE	1,100 ppm
Benzene	1 ppm (TWA) 5 ppm (STEL)	0.5 ppm (TWA) 2.5 ppm (STEL) Skin	NE	500 ppm
1,2,4-Trimethylbenzene	25 ppm (TWA)	25 ppm (TWA)	NE	NE
Ethylbenzene	100 ppm (TWA)	20 ppm (TWA)	NE	800 ppm
Naphthalene	10 ppm (TWA)	10 ppm (TWA) 15 ppm (STEL)	NE	250 ppm
Ethanol	1,000 ppm (TWA)	1,000 ppm (STEL)	NE	3,300 ppm (10%LEL)

Notes:

1. OSHA PEL are 8-hour TWA (Time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short-Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday.
2. Threshold Limit Values – TWA established by the ACGIH represents the TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed , day after day, for a working lifetime without adverse effect; Short-Term Exposure Limit (TLV-STEL) represents a 15-minute TWA exposure that should not be exceeded at any time during a work day. ACGIH TLV's are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
3. No exposure limits have been developed by the producer.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of a respiratory selection criteria.

(b) Appropriate engineering controls: Provide adequate general and local ventilation to maintain airborne chemical concentrations below applicable exposure limits, to prevent accumulation of flammable vapors and formation of explosive atmosphere, and to prevent formation of an oxygen deficient environment. Use non-sparking explosion proof, totally enclosed ventilation systems. Only use non-sparking tools, if engineering controls or work activities are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

(c) Individual protection measures:

Eye/face protection: Wear approved safety glasses/goggles with side shields and/or an appropriate full-face shield. All eye protection should be selected and worn in accordance with the OSHA eye and face protection guidelines outlined in 29 CFR 1910.132 and 1910.133; and/or CSA Standard CAN/CSA-Z94.3-92.

Skin Protection: Wear appropriate clothing to prevent skin contact. Thoroughly decontaminate any articles of clothing that come into contact with product. The use of gloves is advised to prevent skin exposure and contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and conditions, additional protection may be necessary to prevent skin contact including items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. All PPE should be selected and worn in accordance with 29 CFR 1910.132 and 1910.138. Flame resistant clothing that meets the NFPA 212 and CAN/CGSB 155.20 standards is recommended in areas where material is stored or handled.

Respiratory protection: A positive pressure air line with full-face mask and escape bottle or a self-contained breathing apparatus (SCBA) should be available in case of an emergency and cases when the IDLH is exceeded. All respirators should be selected and worn in accordance with 29 CFR 1910.132 and 1910.134, and/or CSA Standard CAN/CSA-Z94.4-11.

(d) 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. Eye-wash and quick-drench shower facilities should be available in the work area.

General: Wear chemical protective equipment. Launder contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties	
(a) Appearance:	Colorless liquid
(b) Odor:	Gasoline
(c) Odor Threshold:	0.06 to 0.08 ppm
(d) pH:	N/A
(e) Melting point/Freezing point:	N/A
(f) Boiling point/range:	26.667 to 225°C (80 to 437 °F)
(g) Flash Point:	Closed cup: -42.448°C (-45°F)
(h) Evaporation rate:	< 1 (Ethyl Ether = 1)
(i) Flammability:	N/A
(j) UFL/LFL or UEL/LEL:	Lower: 1.4% Upper: 7.6%
(k) Vapor pressure:	26.7 – 93.3 kPa (200 - 700mm Hg) [20°C]
(l) Vapor density (air =1.0):	3-4
(m) Relative density (water = 1.0):	0.7-0.77
(n) Solubility in water:	Very slightly soluble
(o) Partition coefficient:	N/A
(p) Auto-ignition temperature:	257.22°C (495°F)
(q) Decomposition temperature:	N/A
(r) Viscosity:	Kinematic (37.8°C(100°F)): 0.00216 cm^2/s (0.216 cSt)

SECTION 10: STABILITY AND REACTIVITY

(a) **Reactivity:** No specific test data related to reactivity available for this product or its ingredients. When heated sufficiently or when ignited in the presence of air oxygen, Gasoline will burn exothermically to produce carbon dioxide and water.

(b) **Chemical stability:** Material is stable under normal conditions.

(c) **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reaction will not occur

(d) **Conditions to avoid (e.g., static discharge, shock, or vibration):** Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

(e) **Incompatible materials:** Oxidizing materials

(f) **Hazardous decomposition products:** Carbon dioxide, carbon monoxide, smoke (non-combusted hydrocarbons). Oxides of nitrogen may also be formed.

(g) **Hazardous Polymerization:** Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

(a) **Information on likely routes of exposure:**

- **Inhalation:** causes irritation of upper respiratory tract; central nervous system stimulation followed by depression of varying degrees ranging from dizziness, headache, and incoordination to anesthesia, coma, and respiratory arrest; irregular heartbeat is dangerous complication.
- **Accidental Ingestion:** causes irritation of mucous membranes of throat, esophagus, and stomach; stimulation followed by depression of central nervous system; irregular heartbeat.
- **Skin contact:** May cause skin irritation with prolonged or repeated contact.
- **Eye contact:** May cause moderate irritation.

(b) **Symptoms related to physical, chemical and toxicological characteristics:** Skin contact may cause dermal irritation. Excessive inhalational exposures may cause irritation to nose, throat, lungs, and respiratory tract. Central nervous system effects may include headache, dizziness, loss or balance and coordination, unconsciousness, and respiratory failure

(c) **Delayed and immediate effects and also chronic effects from short- and long-term exposure:** Chronic skin exposures can lead to dermatitis. Laboratory animal studies of petroleum products by the dermal and inhalation exposure routes through prolonged or repeated exposure have demonstrated toxicity to the liver, blood, spleen and thymus.

(d) **Numerical measures of toxicity:** In addition to the available data related to Gasoline as a whole, individual constituent compounds were also used for determination of the toxicity values.

Acute Toxicity (Oral)				
Chemical	Tested % Weight	Model	LD_{50} Range	Reference
Gasoline (natural)	100%	Rat	>5,000 mg/kg	ECHA, 2020

Xylene	100%	Rat	3,523 - 4,000 mg/kg	ECHA, 2020
Toluene	100%	Rat	1,640 – 7,500 mg/kg	HSDB, 2014
n-Hexane	100%	Rat	>5,000 mg/kg	Lewis, R.J. Sr (ed) Sax's Dangerous Properties of Industrial Materials, 2004
Benzene	100%	Rat	3,306 mg/kg	Lewis, R.J. Sr (ed) Sax's Dangerous Properties of Industrial Materials, 2004
1,2,4-Trimethylbenzene	100%	Rat	>5,000 mg/kg	ECHA, 2020
Ethylbenzene	100%	Rat	3,500 – 5,460 mg/kg	HSDB, 2014
Naphthalene	100%	Mouse	533 mg/kg	ECHA, 2020
Ethanol	100%	Rat	>5,000 mg/kg	ECHA, 2020

Acute Toxicity (Dermal)				
Chemical	Tested % Weight	Model	LD_{50} Range	Reference
Gasoline (natural)	100%	Rabbit	>2,000 mg/kg	ECHA, 2020
Xylene	100%	Rabbit	>5,000 mg/kg	ECHA, 2020
Toluene	100%	Rabbit	>5,000 mg/kg	HSDB, 2014
n-Hexane	100%	Rabbit	3,000 mg/kg	HSDB, 2014; IUCLID, 2012
Benzene		No data available		
1,2,4-Trimethylbenzene	100%	Rat	>3,440 mg/kg	ECHA, 2020
Ethylbenzene	100%	Rabbit	>5,000 mg/kg	HSDB, 2014
Naphthalene	100%	Rat	>5,000 mg/kg	ECHA, 2020
Ethanol		No data available		

Acute Toxicity (Inhalation)				
Chemical	Tested % Weight	Model	LD_{50} Range	Reference
Gasoline (natural)	100%	Rat	5.3 – 5.9 mg/L	ECHA, 2020
Xylene	100%	Rat	29 mg/L	ECHA, 2020
Toluene	100%	Rat	>20 mg/L	ECHA, 2014
n-Hexane	100%	Rat	169 mg/L	HSDB, 2014; Snyder et al., 1987
Benzene	100%	Rat	31.9 mg/L	Lewis, R.J. Sr (ed) Sax's Dangerous Properties of Industrial Materials, 2004
1,2,4-Trimethylbenzene	Unspecified	Rat	>18 mg/L	Prior manufacturer SDS

Ethylbenzene		No data available		
Naphthalene	100%	Rat	>0.4 mg/L	ECHA, 2020
Ethanol	100%	Mouse	>114 mg/L	ECHA, 2020

Skin Damage/Irritation			
Chemical	Model	Symptom	Reference
Gasoline (natural)	Rabbit	Moderate erythema and edema fully reversible by day 14	ECHA, 2020
Xylene	Rabbit	p-Xylene applied to trunk resulted in well-defined erythema present throughout the 7-day observation period	ECHA, 2020
Toluene	Rabbit	Erythema 2.43 at 72h	ECHA, 2014
n-Hexane	Guinea Pig	Progressive nuclear pyknosis and junctional separation between the basement membrane and basal cells [of the epidermis].	HSDB, 2014; Kronevi et al., 1979
Benzene	Human	Defatting of keratin layer causing erythema, vesiculation and dry, scaly dermatitis. Report of skin irritation following high level (> 60 ppm) occupational exposures.	Patty's Industrial Hygiene and Toxicology, 2001; Midzenski et al., 1992
1,2,4-Trimethylbenzene	Rabbit	May be irritating to the skin based on experimental data using 1,3,5-trimethylbenzene	ECHA, 2020
Ethylbenzene	Rabbit	Moderately irritating	ECHA, 2014
Naphthalene	Rabbit	Not Irritating	ECHA, 2020
Ethanol	Human	Slightly irritating under extreme repeat dose scenarios	ECHA, 2020

Eye Damage/Irritation			
Chemical	Model	Symptom	Reference
Gasoline (natural)	Rabbit	Not irritating	ECHA, 2020
Xylene	Rabbit	Slightly irritating	ECHA, 2020
Toluene	Rabbit	Not irritating	ECHA, 2014
n-Hexane	Human/Rabbit	Irritation of the eye and throat after exposure. Noted as an eye irritant in humans. Mild eye irritation in rabbits.	ACGIH, 2001; TLV Documentation for n-hexane; Lewis, R.J. Sr (ed) Sax's Dangerous Properties of Industrial Materials, 2004
Benzene	Rabbit	Moderate to severe eye irritation	Lewis, R.J. Sr (ed) Sax's Dangerous Properties of Industrial Materials, 2004
1,2,4-Trimethylbenzene	Rabbit	Immediately irritating to the eye with quick resolution of effects	ECHA, 2020
Ethylbenzene	Rabbit	Slightly irritating	ECHA, 2014

Naphthalene	Rabbit	Not Irritating	ECHA, 2020
Ethanol	Rabbit	Irritating	ECHA, 2020

Respiratory Sensitization
No data available on respiratory sensitization

Skin Sensitization			
Chemical	Model	Symptom	Reference
Gasoline (natural)	Guinea Pig	Not sensitizing	ECHA, 2020
Xylene	Mouse	Data not sufficient for classification	ECHA, 2020
Toluene	Guinea pig	Not sensitizing	ECHA, 2014
n-Hexane	Mice	No evidence of skin sensitization	Takeyoshi et al., 2005
Benzene		No data available	
1,2,4-Trimethylbenzene	Guinea pig	Not sensitizing	ECHA, 2020
Ethylbenzene		No data available	
Naphthalene	Guinea pig	Not Sensitizing	ECHA, 2020
Ethanol		No data available	

Germ Cell Mutagenicity		
Chemical	Test/Result	Reference
Gasoline (natural)	Results of in vitro and in vivo assays were predominantly negative	ECHA, 2020
Xylene	Results of in vitro and in vivo assays were predominantly negative	ECHA, 2020
Toluene	Chromosome aberration / negative	ECHA. 2014
n-Hexane	Results of in vivo and in vitro genotoxicity testing were predominantly negative	US EPA, 2005; Toxicological Review of n-hexane
Benzene	Positive in vivo chromosomal aberration and micronuclei induction.	EU, 2008; European Union Risk Assessment Report on Benzene.
1,2,4-Trimethylbenzene	Results of in vivo and in vitro genotoxicity testing were predominantly negative	ECHA, 2020
Ethylbenzene	Chromosome aberration / negative	ECHA. 2014
Naphthalene	Results of in vivo and invitro genotoxicity testing predominantly negative	ECHA, 2020
Ethanol	Results of in vitro assays were predominantly negative	ECHA, 2020

Carcinogenicity				
Compound	ACGIH	IARC	NTP	OSHA
Gasoline	Not Classified	Group 2B - Possibly carcinogenic to humans	Not listed	Not Classified
Xylene	A4 - Not classifiable as a human carcinogen.	Group 3 – Not classifiable as to its carcinogenicity to humans	Not listed	Not classified
Toluene	A4 - Not classifiable as a human carcinogen.	Group 3 – Not classifiable as to its carcinogenicity to humans	Not listed	Not classified
n-Hexane	Not classified	Not classified	Not listed	Not classified
Benzene	A1 – Confirmed Human Carcinogen	Group 1 – Carcinogenic to Humans	Known to be a human carcinogen	Carcinogen
1,2,4-Trimethylbenzene	Not classified	Not classified	Not listed	Not classified
Ethylbenzene	A3 - Confirmed animal carcinogen with unknown relevance to humans	Group 2B - Possibly carcinogenic to humans	Not listed	Not classified
Naphthalene	A4 – Not classifiable as a human carcinogen	2B – Possibly carcinogenic to humans	Reasonable anticipated to be a human carcinogen	Not classified
Ethanol	Not classified	Not classified	Not listed	Not classified

Reproductive Toxicity		
Chemical	Test/Result	Reference
Gasoline (natural)	Mostly negative findings for reproductive and developmental endpoints	ECHA, 2020
Xylene	Mostly negative findings for reproductive and developmental endpoints	ECHA, 2020
Toluene	Overall the NOAEC for parental toxicity and off-spring toxicity was 500 ppm.	ECHA, 2014
n-Hexane	Mostly negative findings except some high dose effects relating to maternal toxicity	US EPA, 2005; Toxicological Review of n-hexane
Benzene	Mostly negative findings for reproductive and developmental endpoints	US EPA, 2002; Toxicological Review of benzene
1,2,4-Trimethylbenzene	Not toxic to reproduction and no effect on fertility or development	ECHA, 2020
Ethylbenzene	Insufficient Data	
Naphthalene	Mostly negative findings except some high dose effects relating to maternal toxicity	ECHA, 2020

Ethanol	No effect on fertility via subchronic oral exposure to 20,700 mg/kg/day; no effect on developmental toxicity via subchronic inhalation exposure to 30.4 mg/L	ECHA, 2020

Specific Target Organ (STOT) – Single Exposure				
Compound	Route/Organism	Dose	Effect	Reference
Gasoline (natural)	Inhalation human	unspecified	CNS effects	ECHA, 2020
Xylene	No data sufficient for classification			
Toluene	Inhalation / Human	100 – 300 ppm	CNS effects	HSDB, 2014
n-Hexane	Inhalation / Human	5,000 ppm	CNS Effects (vertigo and nausea)	HSDB, 2014
Benzene	Inhalation/Human	Unspecified	CNS Effects (dizziness, headache, nausea, euphoria)	HSDB, 2014
1,2,4-Trimethylbenzene	No data sufficient for classification			
Ethylbenzene	No data sufficient for classification			
Naphthalene	Oral/Human	Unspecified	Hemolytic anemia and hypotension	ECHA, 2020
Ethanol	No data sufficient for classification			

Specific Target Organ (STOT) – Repeated Exposure			
Compound	Test	Result	Reference
Gasoline (natural)	No data sufficient for classification		
Xylene	90-day toxicity study (inhalation)	Ototoxicity following repeated exposure to p-xylene or mixed xylenes in rats	ECHA, 2020
Toluene	OECD Guideline 453	Affected Central nervous system	ECHA, 2014
n-Hexane	90-day toxicity study (oral)	Peripheral neuropathy, hindlimb paralysis at 570 mg/kg	Krasavage et al., 1980
Benzene	90-day toxicity study (inhalation)	Hematological effects at 300 ppm	Ward et al., 1985
1,2,4-Trimethylbenzene	No data sufficient for classification		
Ethylbenzene	No data sufficient for classification		
Naphthalene	No data sufficient for classification		
Ethanol	No data sufficient for classification		

Aspiration Hazard		
Chemical	Assessment	Reference
Gasoline (natural)	Aspiration hazard	Previous SDS
Xylene	Presumed aspiration hazard based on kinematic viscosity of <20.5 mm^2/s at 40°C	ECHA, 2020
Toluene	Aspiration hazard	ECHA, 2014

n-Hexane	No data available	
Benzene	No data available	
1,2,4-Trimethylbenzene	No data available	
Ethylbenzene	Aspiration hazard	ECHA, 2014
Naphthalene	No data available	
Ethanol	No data available	

SECTION 12: ECOLOGICAL INFORMATION

This product has no known adverse ecological effects.

(a) **Ecotoxicity:** This material is expected to be potentially toxic to aquatic organisms. Ecotoxicity data have not been determined specifically for this mixture.

(b) **Persistence and degradability:** Hydrocarbon mixtures are not considered readily biodegradable and most nonvolatile components are not biodegradable. Some components are persistent in water. Lighter components will tend to evaporate but the heavier components may become dispersed in water or absorbed to soil or sediment.

(c) **Bioaccumulative potential:** The octanol water coefficient (Log K_{ow}) values for the hydrocarbon components of this material range from less than 2 to greater than 6, and therefore would be regarded as having the potential to bioaccumulate.

(d) **Mobility in soil:** Some components may be mobile and contaminate groundwater.

(e) **Other adverse effects:** coating with this mixture can kill birds, plankton, aquatic life, algae, and fish

SECTION 13: DISPOSAL CONSIDERATIONS

Description of waste residues and safe handling: It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Dispose of waste in accordance with the federal, state, and local laws and regulations. This material may be considered a RCRA hazardous waste under 40 CFR 261-271 due to its ignitability. The product can be an ignitable hazardous waste. It is recommended that this product, in any form, be incinerated in suitable combustion chamber for disposal. If possible, use a flare.

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

This product is listed as a hazardous material per DOT shipping regulations.

- **(a)** UN number: UN1203
- **(b)** UN proper shipping name: GASOLINE. Marine pollutant (Gasoline, natural)
- **(c)** Transport Hazard classes: 3
- **(d)** Packing group: II
- **(e)** Environmental hazards
    - i. Marine pollutant: Yes
- **(f)** Transport in bulk
    - i. IBC Code – No applicable information
    - ii. Annex II of MARPOL 73/78 - No applicable information
- **(g)** Special precautions: No applicable information
- **(h)** Additional information
    - i. Limited quantity: yes
    - ii. Packaging instruction
        1. Passenger aircraft quantity limitation: 5L
        2. Cargo aircraft quantity limitation: 60L
    - iii. Special provisions: 139, B33, B1, T8

SECTION 15: REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

U.S. Federal regulations:

TSCA 8(a) PAIR: Naphthalene
TSCA 8(a) IUR Exempt/Partial exemption: Not determined
SARA 302/304/311/312 extremely hazardous substances: No products were found
SARA 302/304 emergency planning and notification: No products were found
SARA 302/304/311/312 hazardous chemicals: Gasoline (natural); Xylene; Toluene; n-Hexane; Naphthalene; 1,2,4-Trimethylbenzene; Ethylbenzene; Benzene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Gasoline, natural: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Naphthalene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 1,2,4-Trimethylbenzene: Fire hazard, Delayed (chronic) health hazard; Ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Benzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Toluene; Benzene; Ethylbenzene; Naphthalene
Clean Water Act (CWA) 311: Xylene; Toluene; Benzene; Ethylbenzene; Naphthalene

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Listed

SARA 313

	Component	CAS number	Concentration
Form R – Reporting requirements	Xylene	1330-20-7	10-30%
	Toluene	108-88-3	10-30%
	n-Hexane	110-54-3	1-5%
	Benzene	71-43-2	1-5%
	1,2,4-Trimethylbenzene	95-63-3	1-5%
	Ethylbenzene	100-41-4	1-5%
	Naphthalene	91-20-3	1-5%
Supplier notification	Xylene	1330-20-7	10-30%
	Toluene	108-88-3	10-30%
	n-Hexane	110-54-3	1-5%
	Benzene	71-43-2	1-5%
	1,2,4-Trimethylbenzene	95-63-3	1-5%
	Ethylbenzene	100-41-4	1-5%
	Naphthalene	91-20-3	1-5%

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall including copying and redistribution of the notice attached to copies of thee SDS subsequently distributed.

State regulations

Massachusetts: The following components are listed: Gasoline, natural; Xylene; Toluene; n-Hexane; Benzene; Ethylbenzene; 1,2,4-Trimethylbenzene; Naphthalene

New York The following components are listed: Xylene; Toluene; n-Hexane; Benzene; Ethylbenzene; Naphthalene

New Jersey The following components are listed: Gasoline, natural; Xylene; Toluene; n-Hexane; Benzene; Ethylbenzene; 1,2,4-Trimethylbenzene; Naphthalene

Pennsylvania The following components are listed: Xylene; Toluene; n-Hexane; Benzene; Ethylbenzene; 1,2,4-Trimethylbenzene; Naphthalene

California Proposition 65: Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): ethyl benzene, benzene, toluene.

Component	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No	Yes	No	7,000 ug/day (ingestion) 13,000 ug/day (inhalation)
Benzene	Yes	Yes	6.4 ug/day (ingestion) 13 ug/day (inhalation)	24 ug/day (ingestion) 49 ug/day (inhalation)
Ethylbenzene	Yes	No	41 ug/day (ingestion) 54 ug/day (inhalation)	No
Naphthalene	Yes	No	Yes	No

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

N/C – Not Classified – No concern based on consideration of the sum of available data.
N/D – Not Determined
N/A – Not Applicable or Not Available
N/R – Not Regulated
CAS – Chemical Abstract Service
EC – European Community
STOT – Specific Target Organ Toxicity
OSHA – US Occupational Safety and Health Organization
PEL – OSHA Permissible Exposure Limits
ACGIH – American Conference of Governmental Industrial Hygienists
TLV – ACGIH® Threshold Limit Values
REL – Recommended Exposure Limits
IDLH – Immediately Dangerous to Life or Health
TWA – Time Weighted Average – Average exposure over a specified period of time (i.e., 8 hours)
STEL - a 15-minute TWA exposure that should not be exceeded at any time during a work day.
Ceiling – Exposure limit which shall at no time be exceeded during the work day.
NE – None Established
APF – Assigned Protection Factor – the level of respiratory protection that a respirator is expected to provide.
UEL – Upper Explosive Limit – Highest concentration (percentage) of a gas or vapor in air capable of producing a flash fire in the presence of an ignition source
LEL – Lower Explosive Limit – Lowest concentration (percentage) of a gas or vapor in air capable of producing a flash fire in the presence of an ignition source.
UFL – Upper Flammability Limit - Maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.
LFL – Lowest concentration at which a flammable mixture of gas or vapor in air can ignite at a given temperature and pressure.
IARC – International Agency for Research on Cancer
NTP – National Toxicology Program
NIOSH- National Institute for Occupational Safety and Health
NOAA – National Oceanic and Atmospheric Administration
GHS - Globally Harmonized System of Classification and Labeling of Chemicals
RTECS – Registry of Toxic Effects of Chemical Substances
HSDB – Hazardous Substances Data Bank

Disclaimer:
The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions

SECTION 1: IDENTIFICATION	
(a) PRODUCT IDENTIFIER: Diesel Fuel (all grades)	(b) OTHER MEANS OF IDENTIFICATION: Ultra Low Sulfur Diesel (ULSD), Low Sulfur Diesel, Motor Vehicle Diesel Fuel, Diesel Fuel #2, Dyed Diesel Fuel, Off-road Diesel, Locomotive and Marine Diesel Fuel, Tax-exempt Diesel Fuel, Fuel Oil
	Product Group: Liquid **Chemical Family:**

(c) Recommended Use: Fuel

Restrictions on Use: Not to be used for anything other than recommended use.

(d) Manufacturer:

Colonial Pipeline Company. ● 1185 Sanctuary Parkway Suite 100 ● Alpharetta, GA 30009 ● 678-762-2200

Fax: 678-762-2466 ● Email: info@colpipe.com ● Website: www.colpipe.com

(e) EMERGENCY PHONE NUMBER: US: 1-800-424-9300● INTL: +1-703-527-3887● 24 hours/day, 7 days/week

SECTION 2: HAZARDS IDENTIFICATION

The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.

Human Health Hazards

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Acute Toxicity (Oral)	2		Danger	May be fatal if swallowed	Do not eat, drink, or smoke when using this product, P264, P301, P310, P405, P501
Acute Toxicity (Dermal)	N/C	--	--	--	--
Acute Toxicity (Inhalation)	N/C	--	--	--	--
Skin Corrosion/Irritation	2		Warning	Causes skin irritation	Wear protective gloves P264, P280, P302/P352, P332/P313, P362/P364
Eye Damage/Irritation	N/C	--	--	--	--
Respiratory Sensitization	N/C	--	--	--	--
Skin Sensitization	N/C	--	--	--	--
Germ Cell Mutagenicity	N/C	--	--	--	--

SECTION 2: HAZARDS IDENTIFICATION

The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.

Human Health Hazards

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Carcinogenicity	2		Warning	Suspected of causing cancer	P201, P202, P280, P308, P313, P405, P501
Reproductive Toxicity	N/C	--	--	--	--
Specific Target Organ Toxicity (STOT) Single-Exposure	1		Danger	May cause damage to blood if swallowed	Do not eat, drink, or smoke when using this product, P264, P301, P310, P405, P501
Specific Target Organ Toxicity (STOT) Repeated or Prolonged Exposure	N/D	--	--	--	--
Aspiration Hazard	N/D	-	-	-	-

Physical Hazards

Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
Explosives	N/A	-	-	-	-
Flammable Gases	N/A	-	-	-	-
Flammable Aerosols	N/A	-	-	-	-
Oxidizing Gases	N/A	-	-	-	-
Gases Under Pressure	N/A	-	-	-	-
Flammable Liquids	3		Warning	Highly flammable liquid and vapor	-
Flammable Solids	N/A	-	-	-	-
Self-reactive Substances and Mixtures	N/A	-	-	-	-
Substances and mixtures which react with water to emit flammable gases	N/A	-	-	-	-
Oxidizing Liquids	N/A	-	-	-	-

Physical Hazards					
Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
Oxidizing Solids	N/A	-	-	-	-
Organic Peroxides	N/A	-	-	-	-
Corrosive to Metals	N/A	-	-	-	-

Health Hazard Precautionary Statement	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/eye protection/face protection.
P301	If swallowed:
P310	Immediately call a poison center or doctor.
P304	If inhaled:
P340	Remove person to fresh air and keep comfortable for breathing.
P305	If in eyes: Rinse cautiously with water for several minutes.
P351	Remove contact lenses.
P338	Continue rinsing.
P337	If eye irritation persists.
P313	Get medical advice/attention.
P308	If exposed or concerned:
P312	Call a poison center or doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P403	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/container to an approved facility.

Physical Hazard Precautionary Statement	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P235	Keep cool.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash all body parts in contact with material thoroughly after handling.

Physical Hazard Precautionary Statement	
P280	Wear protective gloves/eye protection/face protection.
P303	If on skin or hair:
P352	Wash with plenty of water
P353	Rinse skin with water/shower.
P361	Remove/take off immediately all contaminated clothing.
P362/P364	Take off contaminated clothing and wash it before reuse.
P332/P313	If skin irritation occurs: Get medical advice/attention.
P370	In case of fire.
P378	Use dry chemical, carbon dioxide, or foam for extinction.
P403	Store in a well-ventilated place.
P501	Dispose of contents/container to an approved disposal facility.

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Environmental Hazards					
Acute Toxicity to the Aquatic Environment	3	-	-	Harmful to Aquatic Life	-
Chronic Toxicity to the Aquatic Environment	2		-	Toxic to aquatic life with long lasting effects	-

(d) Unknown toxicity: N/A

(e) Unknown ecotoxicity: N/A

Medical conditions which are generally recognized as being aggravated by exposure: Individuals who are deficient in the enzyme glucose-6-phosphate dehydrogenase may have increase susceptibility to the hemolytic effects of naphthalene.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS[1]			
(a) Chemical name (b) (Common name and synonyms)	**(c) CAS No.**	**(c) EC No.**	**(b) % Weight***
Fuel oil no. 2	68476-30-2	270-671-4	60 – 100 %
Naphthalene	91-20-3	202-049-5	0 – 3%

[1] May contain multifunctional additives and/or dyes including Fatty Acid Methyl Esters (FAME) found in biodiesel fuels

SECTION 4: FIRST AID MEASURES

(a) Description of necessary measures:

INHALATION:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Ger medical attention. If unconscious, place in recover position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

INGESTION:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at res in. apposition comfortable for breathing. If material has been swallowed and the exposed person in conscious give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do no induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
SKIN CONTACT:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
EYE CONTACT:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes: Get medical advice/attention.

(b) Most important symptoms/effects:

- **Acute:** None identified
- **Delayed:** None identified

(c) Indication of immediate medical attention and special treatment: Significant over-exposure

Notes to physician: Treat symptomatically and supportively. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: FIRE FIGHTING MEASURES

(a) Suitable extinguishing media: Foam, dry chemical, carbon dioxide, water spray can cool the fire but may not extinguish the fire.

Unsuitable extinguishing media: High volume water jet. It will spread the fire.

(b) Specific hazards arising from the chemical: Flammable liquid and vapor. It can be ignited by heat, spark, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, and pagers which have not been certified as intrinsically safe). Vapors can travel considerable distances to spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors can be heavier than air and can accumulate in low-lying areas. If container is not properly cooled, it can rupture in the heat of a fire. Hazardous combustion/decomposition products may be released by this material when exposed to heat or fire. Use caution and wear appropriate PPE, including respiratory protection.

(c) Special protective equipment and precautions for fire-fighters: Shut off flow immediately if it can be done safely. Isolate the area from personnel. Keep personnel upwind from fire. Fire fighters should use appropriate SCBA while in close proximity to fire and vapors coming from product. Move personnel upwind of any smoke or vapors.

(d) Flammability/Explosivity: NFPA RATING Hazard Class:

Health = 1
Fire = 2

Instability = 0
(0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

(e) Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion may produce carbon monoxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, Protective equipment, and Emergency procedures: No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk though spilled material. Shut off all ignition sources. No flares, smoking, or flames in hazard area. Avoid breathing vapor or mish. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

(b)Methods and materials for containment and cleaning up: Remove sources of ignition. Beware of explosion danger. Stop flow of product, if it is safe to do so. Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended if possible. Dike the spilled material. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water, remove with appropriate methods (e.g., skimming, booms, or absorbent boom). In the case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations. Recommended measures are based on the most likely spill scenarios for this material; however, local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

Environmental Precautions: Prevent product from entering drains and sanitary sewers. Prevent further leakage or spillage if safe to do so. If product impacts rivers, lakes, drains, or any other body of water, contact appropriate authorities. Consult with an environmental professional for the federal, state, and local cleanup and reporting requirements.

SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling: Keep away from ignition sources such as heat/sparks/open flame. Take precautionary measures against static discharge. Non-sparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink, or smoke when using this product. Do not breathe vapors or mists. Use only outdoors or in well-ventilated area. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Beware of accumulation in confined spaces and low-lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static-electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

Static Accumulation Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding of tanks, transfer piping, and storage tank level floats are

necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. Special care should be given to ensure that slow load procedures for "switch loading" are followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). For more information, refer to OSHA Standard 29 CFR 1910.106 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

(b) Conditions for safe storage, including any incompatibilities: May be incompatible with strong oxidizing agents such as nitric acid, peroxides, and perchlorates. Potentially Incompatible Absorbents: None identified.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Components	**(a) OSHA PEL[1]**	**(a) ACGIH TLV[2]**	**(a) Manufacturer REL[3]**	**(a) IDLH[4]**
Fuel Oil no. 2	NA	100 mg/m^3	NA	NA
Naphthalene	10 ppm TWA	10 ppm TWA 15 ppm STEL	NA	250 ppm

Notes:

1. OSHA PEL are 8-hour TWA (Time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short-Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday.
2. Threshold Limit Values – TWA established by the ACGIH represents the TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed , day after day, for a working lifetime without adverse effect; Short-Term Exposure Limit (TLV-STEL) represents a 15-minute TWA exposure that should not be exceeded at any time during a work day. ACGIH TLV's are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
3. The exposure limits developed by the manufacturer are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of a respiratory selection criteria.

(b) Appropriate engineering controls: Provide adequate general and local ventilation to maintain airborne chemical concentrations below applicable exposure limits, to prevent accumulation of flammable vapors and formation of explosive atmosphere, and to prevent formation of an oxygen deficient environment. Use non-sparking explosion proof, totally enclosed ventilation systems. Only use non-sparking tools, if engineering controls or work activities are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

(c) Individual protection measures:

Eye/face protection: Wear approved safety glasses/goggles with side shields and/or an appropriate full-face shield. All eye protection should be selected and worn in accordance with the OSHA eye and face protection guidelines outlined in 29 CFR 1910.132 and 1910.133; and/or CSA Standard CAN/CSA-Z94.3-92.

Skin Protection: Wear appropriate clothing to prevent skin contact. Thoroughly decontaminate any articles of clothing that come into contact with product. The use of gloves is advised to prevent skin exposure and contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and conditions, additional protection may be necessary to prevent skin contact including items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. All PPE should be selected and worn in accordance with 29 CFR 1910.132 and 1910.138. Flame resistant clothing that meets the NFPA 212 and CAN/CGSB 155.20 standards is recommended in areas where material is stored or handled.

Respiratory protection: A positive pressure air line with full-face mask and escape bottle or a self-contained breathing apparatus (SCBA) should be available in case of an emergency and cases when the IDLH is exceeded. All respirators should be selected and worn in accordance with 29 CFR 1910.132 and 1910.134, and/or CSA Standard CAN/CSA-Z94.4-11.

(d) 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. Eye-wash and quick-drench shower facilities should be available in the work area.

General: Wear chemical protective equipment. Launder contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties	
(a) Appearance:	A colorless to straw-yellow, water-like
(b) Odor:	Petroleum-like
(c) Odor Threshold:	N/A
(d) pH:	N/A
(e) Melting point/Freezing point:	N/A
(f) Boiling point/range:	320 to 670 °C (608 to 1,238 °F)
(g) Flash Point:	Closed cup: 43.33°C (110°F)
(h) Evaporation rate:	< 1 (Ethyl Ether = 1)
(i) Flammability:	N/A
(j) UFL/LFL or UEL/LEL:	Lower: 0.6% Upper: 7.5%
(k) Vapor pressure:	6.9 kPa (51.6 mm Hg) [20°C]
(l) Vapor density (air =1.0):	8
(m) Relative density (water = 1.0):	0.87
(n) Solubility in water:	Very slightly soluble
(o) Partition coefficient:	N/A
(p) Auto-ignition temperature:	260°C (500°F)
(q) Decomposition temperature:	N/A

Physical and Chemical Properties	
(r) Viscosity:	Kinematic (40°C(104°F)): 0.019 to 0.041 cm^2/s (1.9 to 4.1 cSt)

SECTION 10: STABILITY AND REACTIVITY

(a) **Reactivity:** No specific test data related to reactivity available for this product or its ingredients. When heated sufficiently or when ignited in the presence of air oxygen, Diesel Fuel will burn exothermically to produce carbon dioxide and water.

(b) **Chemical stability:** Material is stable under normal conditions.

(c) **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reaction will not occur

(d) **Conditions to avoid (e.g., static discharge, shock, or vibration):** Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

(e) **Incompatible materials:** Oxidizing materials

(f) **Hazardous decomposition products:** Carbon dioxide, carbon monoxide, smoke (non-combusted hydrocarbons). Oxides of nitrogen may also be formed.

(g) **Hazardous Polymerization:** Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

(a) **Information on likely routes of exposure:**

- **Inhalation:** causes irritation of upper respiratory tract; central nervous system stimulation followed by depression of varying degrees ranging from dizziness, headache, and incoordination to anesthesia, coma, and respiratory arrest; irregular heartbeat is dangerous complication.
- **Accidental Ingestion:** causes irritation of mucous membranes of throat, esophagus, and stomach; stimulation followed by depression of central nervous system; irregular heartbeat.
- **Skin contact:** May cause skin irritation with prolonged or repeated contact.
- **Eye contact:** May cause moderate irritation.

(b) **Symptoms related to physical, chemical and toxicological characteristics: :** Skin contact may cause dermal irritation. Excessive inhalational exposures may cause irritation to nose, throat, lungs, and respiratory tract. Central nervous system effects may include headache, dizziness, loss or balance and coordination, unconsciousness, and respiratory failure

(c) **Delayed and immediate effects and also chronic effects from short- and long-term exposure:** Chronic skin exposures can lead to dermatitis. Laboratory animal studies of petroleum products by the dermal and inhalation exposure routes through prolonged or repeated exposure have demonstrated toxicity to the liver, blood, spleen and thymus.

(d) **Numerical measures of toxicity:** No toxicity data is available for Diel Fuel as a whole.

Acute Toxicity (Oral)				
Chemical	Tested % Weight	Model	LD_{50} Range	Reference

Fuel oil no. 2	100%	Rat	>5,000 mg/kg	ECHA, 2020
Naphthalene	100%	Mouse	533 mg/kg	ECHA, 2020

Acute Toxicity (Dermal)				
Chemical	% Weight	Model	LD_{50} Range	Reference
Fuel oil no. 2	100%	Rabbit	>4,300 mg/kg	ECHA, 2020
Naphthalene	100%	Rat	>5,000 mg/kg	ECHA, 2020

Acute Toxicity (Inhalation)				
Chemical	% Weight	Model	LC_{50} Range	Reference
Fuel oil no. 2	100%	Rat	4.1 mg/L	ECHA, 2020
Naphthalene	100%	Rat	>77.7 ppm	ECHA, 2020

Skin Damage/Irritation			
Chemical	Model	Symptom	Reference
Fuel oil no. 2	Rabbit	Irritating	ECHA, 2020
Naphthalene	Rabbit	Not Irritating	ECHA, 2020

Eye Damage/Irritation			
Chemical	Model	Symptom	Reference
Fuel oil no. 2	Rabbit	Not Irritating	ECHA, 2020
Naphthalene	Rabbit	Not Irritating	ECHA, 2020

Respiratory Sensitization
No data available on respiratory sensitization

Skin Sensitization			
Chemical	Model	Symptom	Reference
Fuel oil no. 2	Guinea Pig	Not Sensitizing	ECHA, 2020
Naphthalene	Guinea Pig	Not Sensitizing	ECHA, 2020

Germ Cell Mutagenicity		
Chemical	Test/Result	Reference
Fuel oil no. 2	Data not sufficient for classification	ECHA, 2020
Naphthalene	Results of in vivo and invitro genotoxicity testing predominantly negative	ECHA, 2020

Carcinogenicity				
Compound	ACGIH	IARC	NTP	OSHA
Fuel oil no. 2	A3 – Confirmed animal carcinogen with unknown relevance to humans	Not Classified	Not listed	Not classified

Carcinogenicity				
Compound	ACGIH	IARC	NTP	OSHA
Naphthalene	A4 – Not classifiable as a human carcinogen	2B – Possibly carcinogenic to humans	Reasonable anticipated to be a human carcinogen	Not classified

Reproductive Toxicity		
Chemical	Test/Result	Reference
Fuel oil no. 2	Mostly negative findings for reproductive endpoints	ECHA, 2020
Naphthalene	Mostly negative findings except some high dose effects relating to maternal toxicity	ECHA, 2020

Specific Target Organ Toxicity (STOT) – Single Exposure				
Chemical	Route/Organism	Dose	Effect	Reference
Fuel oil no. 2	NA	NA	No data sufficient for classification	ECHA, 2020
Naphthalene	Oral/Human	Unspecified	Hemolytic anemia and hypotension	ECHA, 2020

Specific Target Organ Toxicity (STOT) – Repeated Exposure				
Chemical	Route/Organism	Dose	Effect	Reference
Fuel oil no. 2	NA	NA	No data available	
Naphthalene	NA	NA	No data available	

Aspiration Hazard		
Chemical	Assessment	Reference
Fuel oil no. 2	No data available	
Naphthalene	No data available	

SECTION 12: ECOLOGICAL INFORMATION

This product has no known adverse ecological effects.

(a) Ecotoxicity: This material is expected to be potentially toxic to aquatic organisms. Ecotoxicity data have not been determined specifically for this mixture.

(b) Persistence and degradability: Hydrocarbon mixtures are not considered readily biodegradable and most nonvolatile components are not biodegradable. Some components are persistent in water. Lighter components will tend to evaporate but the heavier components may become dispersed in water or absorbed to soil or sediment.

(c) Bioaccumulative potential: The octanol water coefficient (Log K_{ow}) values for the hydrocarbon components of this material range from less than 2 to greater than 6, and therefore would be regarded as having the potential to bioaccumulate.

(d) **Mobility in soil:** The log K_{oc} of Fuel Oil No. 2 is reported to range from 3.0 to 5.7, a range that suggests low to no mobility in soil.

(e) **Other adverse effects:** coating with this mixture can kill birds, plankton, aquatic life, algae, and fish

SECTION 13: DISPOSAL CONSIDERATIONS

Description of waste residues and safe handling: It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Dispose of waste in accordance with the federal, state, and local laws and regulations. This material may be considered a RCRA hazardous waste under 40 CFR 261-271 due to its ignitability. The product can be an ignitable hazardous waste. It is recommended that this product, in any form, be incinerated in suitable combustion chamber for disposal. If possible, use a flare.

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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 empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

This product is not a hazardous material per DOT shipping regulations.

(a) UN number: NA1993

(b) UN proper shipping name: Fuel oil no. 2

(c) Transport Hazard classes: 3

(d) Packing group: III

(e) Environmental hazards

  i. Marine pollutant: No applicable information

(f) Transport in bulk

  i. IBC Code – No applicable information

  ii. Annex II of MARPOL 73/78 - No applicable information

(g) Special precautions: No applicable information

SECTION 15: REGULATORY INFORMATION

OSHA/MSHA HAZARD COMMUNICATION: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA- Not considered hazardous

EPCRA 302- Not considered hazardous

EPCRA 304- Not considered hazardous

SECTION 16: OTHER INFORMATION

Date of Preparation or Last Change: 01/22/2021

Abbreviations and acronyms:

N/C – Not Classified – No concern based on consideration of the sum of available data.
N/D – Not Determined
N/A – Not Applicable or Not Available
N/R – Not Regulated
CAS – Chemical Abstract Service
EC – European Community
STOT – Specific Target Organ Toxicity
OSHA – US Occupational Safety and Health Organization
PEL – OSHA Permissible Exposure Limits
ACGIH – American Conference of Governmental Industrial Hygienists
TLV – ACGIH® Threshold Limit Values
REL – Recommended Exposure Limits
IDLH – Immediately Dangerous to Life or Health
TWA – Time Weighted Average – Average exposure over a specified period of time (i.e., 8 hours)
STEL - a 15-minute TWA exposure that should not be exceeded at any time during a work day.
Ceiling – Exposure limit which shall at no time be exceeded during the work day.
NE – None Established
APF – Assigned Protection Factor – the level of respiratory protection that a respirator is expected to provide.
UEL – Upper Explosive Limit – Highest concentration (percentage) of a gas or vapor in air capable of producing a flash fire in the presence of an ignition source
LEL – Lower Explosive Limit – Lowest concentration (percentage) of a gas or vapor in air capable of producing a flash fire in the presence of an ignition source.
UFL – Upper Flammability Limit - Maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.
LFL – Lowest concentration at which a flammable mixture of gas or vapor in air can ignite at a given temperature and pressure.
IARC – International Agency for Research on Cancer
NTP – National Toxicology Program
NIOSH- National Institute for Occupational Safety and Health
NOAA – National Oceanic and Atmospheric Administration
GHS - Globally Harmonized System of Classification and Labeling of Chemicals
RTECS – Registry of Toxic Effects of Chemical Substances
HSDB – Hazardous Substances Data Bank

Disclaimer:
The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions