The Oldest Registered DISTILLERY NO. 1 EST. 1866 *Distillery in the U.S.A.*

JACK DANIEL DISTILLERY

LEM MOTLOW, PROPRIETOR

DISTILLERS AND BOTTLERS OF THE FAMOUS

Phone 931 759-4221

AWARDED THE HIGHEST GOLD MEDALS AT
ST. LOUIS, MO. EXPOSITION, 1904
LIEGE, BELGIUM, 1905
GHENT BELGIUM, 1913
ANGLO-AMERICAN EXPOSITION, LONDON, 1914
CERTIFICATE OF THE INST. OF HYGIENE, LONDON, 1915
STAR OF EXCELLENCE, BRUSSELS, BELGIUM, 1954
GOLD MEDAL WITH PALM LEAVES, AMSTERDAM, 1981

JACK DANIEL'S OLD TIME Old No. 7 BRAND WHISKEY

FINE WHISKEYS
PLACED IN THE NATIONAL REGISTER OF HISTORIC PLACES BY THE UNITED STATES GOVERNMENT

LYNCHBURG, TENN.
37352

May 1, 2023

VIA E-MAIL: Air.Pollution.Control@tn.gov
VIA E-MAIL: APC.ColuEFO@tn.gov

Ms. Michelle Walker Owenby, Director
Tennessee Division of Air Pollution Control (TDAPC)
ATTN: Operating Permits Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

RE: Semi-Annual Title V Report Certification
Jack Daniel Distillery, Lem Motlow Proprietor
1926 Fayetteville Highway, Lynchburg, TN
Emission Source Reference Number: 64-0013

Dear Ms. Owenby:

Jack Daniel Distillery, Lem Motlow Proprietor in Lynchburg, Tennessee currently holds Title V operating permit number 572445 issued June 7, 2018 and Administrative Amendment #1 issued on January 9, 2020. In accordance with the Title V permit and TAPCR 1200-3-9-.02(11)(e)1.(iii), we are submitting our semi-annual compliance report.

The enclosed semi-annual report covers the reporting period October 1, 2022 to March 31, 2023 with a report deadline of May 30, 2023.

I, the undersigned, am the responsible official as defined in TAPCR 1200-03-09-.02(11)(b)21 of the Title V source for which this document is being submitted. This document consists of twenty-five (25) pages. I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

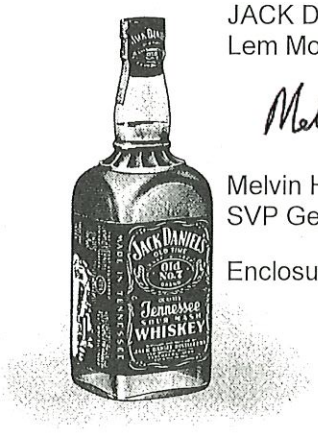
Please contact Donna Clark at (931) 247-1725 or via email at **donna_clark@b-f.com** should you have any questions or need additional information.

Respectfully,

JACK DANIEL DISTILLERY
Lem Motlow Proprietor

Melvin H. Keebler
SVP General Manager

Enclosures



SEMI-ANNUAL REPORT
JACK DANIEL DISTILLERY, LEM MOTLOW PROPRIETOR
Reference No. 64-0013
Permit Number 572445
Semi-Annual Period October 1, 2022 to March 31, 2023

Condition E2(a)(1)
Summary of Monitoring and Recordkeeping for all Conditions Listed in Condition E2(a)(1) of the Permit

Condition E4-2:
SO_2 from the boilers identified in this condition did not exceed the respective lb/hr limits (42.67 lbs/hr total) during the reporting period nor 186.89 tons during all periods of twelve consecutive months based on heat input capacity fire rate and a maximum sulfur content of 0.5% by weight.

Compliance is demonstrated by using the current EPA AP-42 emission factor at 0.5% sulfur content by weight at maximum fire rate of the boiler for distillate oil. For each shipment of oil utilized in the boiler, documentation will be supplied which contains information sufficient to establish the sulfur content of the fuel oil (vendor analysis, MSDS, fuel oil specification data or similar information). This information is submitted and reported as part of the semiannual reports in which oil is utilized in the boilers in accordance with Condition E2(a)(1). No deviations occurred from the requirements of these conditions of this permit during this reporting period.

Fuel oil was burned in warehouse boilers during the period. Accordingly, fuel certifications for the ultra-low diesel fuel are attached for reference.

Condition E5-1:
Volatile organic compounds (VOC) emissions from these sources did not exceed 10,607 tons during all periods of twelve consecutive months. Compliance is demonstrated by using the emission factor from the Brown-Forman Barrel Study of 7.35 lbs of ethanol/barrel/year applied to the number of barrels stored in the warehouses to calculate VOC emissions. Logs 1 and 2 are submitted semiannually as required. No deviations occurred from the requirements of these conditions of this permit during this reporting period.

Condition E6-1:
VOC emissions from these sources did not exceed 483.7 tons during all periods of twelve consecutive months of operation. Compliance is demonstrated by using the historical VOC loss emission factor of 0.5%. Log 3 is submitted semiannually as required; records of calibrations for density meters, hydrometers, thermometers, and tank scales are kept available for the Technical Secretary or his representative. No deviations occurred from the requirements of these conditions of this permit during this reporting period.

Condition E9-2:
SO_2 emitted from the boilers in this condition did not exceed the respective lb/hr limits (32.34 lbs/hr total) during the reporting period nor 38.5 tons during all periods of twelve consecutive months based on heat input capacity fire rate and a maximum sulfur content of 0.5% by weight.

Compliance is demonstrated by using the current EPA AP-42 emission factor at 0.5% sulfur content by weight at maximum fire rate of the boiler for distillate oil. For each shipment of oil utilized in the boiler, documentation will be supplied which contains information sufficient to establish the sulfur content of the fuel oil (vendor analysis, MSDS, fuel oil specification data or similar information). This information is submitted and reported as part of the semiannual reports in which oil is utilized in the boilers in accordance with Condition E2(a)(1). No deviations occurred from the requirements of these conditions of this permit during this reporting period.

Fuel oil was burned in warehouse boilers during the period. Accordingly, fuel certifications for the ultra-low diesel fuel are attached for reference.

Condition E2(a)(2)
Summary of Visible Emission Evaluation Readings for all Conditions Listed in Condition E2(a)(2) of the Permit

Condition E3-1:
Visible emission evaluations, based on the opacity matrix, are not required for any source at this facility; therefore, no evaluations were performed during this semi-annual reporting period. No deviations occurred from the requirements of these conditions of this permit during this reporting period.

Condition E2(a)(3)
Identification of All Instances of Deviations from All Permit Requirements.

There were no deviations of permit conditions from any source during this reporting period.

Jack Daniel Distillery
Lem Motlow Proprietor
Title V Compliance Demonstration

LOG 1: Monthly warehouse logs for VOC emission compliance.

This Warehouse VOC Emissions Log is for the Month of October, Year 2022.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,748,692	0.6125	841.79
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	841.79

This Warehouse VOC Emissions Log is for the Month of November, Year 2022.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,745,326	0.6125	840.76
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	840.76

This Warehouse VOC Emissions Log is for the Month of December, Year 2022.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,774,846	0.6125	849.80
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	849.80

Jack Daniel Distillery
Lem Motlow Proprietor
Title V Compliance Demonstration

LOG 1: Monthly warehouse logs for VOC emission compliance.

This Warehouse VOC Emissions Log is for the Month of January, Year 2023.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,758,129	0.6125	844.68
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	844.68

This Warehouse VOC Emissions Log is for the Month of February, Year 2023.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,757,734	0.6125	844.56
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	844.56

This Warehouse VOC Emissions Log is for the Month of March, Year 2023.

Source	Location	Type of Warehouse	Number of Warehouses	Material Processed (Number of Barrels of Whiskey per Month)	Emission Factor (lb VOC/barrel)	VOC Emissions (ton/month)
64-0013-06	Tract I	Traditional	96	2,711,294	0.6125	830.33
	and					
64-0013-02	Tract II					
	and					
64-0013-08	Tract III					
Total					**Monthly Total from all Warehouses**	830.33

Jack Daniel Distillery
Lem Motlow Proprietor
Title V Compliance Demonstration

LOG 2: Log of VOC Emissions for 12 Consecutive Months

VOC Emissions		
Month/Year	Tons/Month	Tons/12 Consecutive Months*
October 2022	841.8	9,991.1
November 2022	840.8	10,024.5
December 2022	849.8	10,054.6
January 2023	844.7	10,074.9
February 2023	844.6	10,094.9
March 2023	830.3	10,097.8

Jack Daniel Distillery
Lem Motlow Proprietor
Title V Compliance Demonstration

LOG 3: Monthly Log for Compliance Purposes for Processing and Bottling from 64-0013-05 & 07

Processing and Bottling Monthly VOC Emissions Log for the Month of October 2022

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Oct-22	4,403,819.08	72,663.01	36.33	
		Total for All Tracts	72,663.01	36.33	348.73

Processing and Bottling Monthly VOC Emissions Log for the Month of November 2022

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Nov-22	4,258,254.90	70,261.21	35.13	
		Total for All Tracts	70,261.21	35.13	352.32

Processing and Bottling Monthly VOC Emissions Log for the Month of December 2022

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Dec-22	2,545,900.60	42,007.36	21.00	
		Total for All Tracts	42,007.36	21.00	355.97

Processing and Bottling Monthly VOC Emissions Log for the Month of January 2023

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Jan-23	4,426,807.57	73,042.32	36.52	
		Total for All Tracts	73,042.32	36.52	364.79

Processing and Bottling Monthly VOC Emissions Log for the Month of February 2023

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Feb-22	4,160,629.00	68,650.38	34.33	
		Total for All Tracts	68,650.38	34.33	370.20

Processing and Bottling Monthly VOC Emissions Log for the Month of March 2023

Processing and Bottling From All Tracts	Month/Year	Proof Gallons per Month	VOC Emissions Released Monthly (pounds)*	VOC Emissions (ton/month)	VOC Emissions (tons/12 consecutive months)**
	Mar-23	3,961,571.90	65,365.94	32.68	
		Total for All Tracts	65,365.94	32.68	368.16

Jack Daniel Distillery
Lem Motlow Proprietor
Title V Compliance Demonstration

LOG 3: Monthly Log for Compliance Purposes for Processing and Bottling from 64-0013-05 & 07

VOC Emissions		
Month/Year	Tons/Month	Tons/12 Consecutive Months
October 2022	36.33	348.7
November 2022	35.13	352.3
December 2022	21.00	356.0
January 2023	36.52	364.8
February 2023	34.33	370.2
March 2023	32.68	368.2

SAFETY DATA SHEET

SDS ID NO.: 0290MAR019 **Revision date** 10/01/2020

1. IDENTIFICATION

Product Name Marathon Petroleum No. 2 Diesel

Synonym No. 2 Ultra Low Sulfur Diesel (15 ppm Sulfur Max); No. 2 Low Sulfur Diesel (500 ppm Sulfur Max); ULSD No. 2; ULSD No. 2, dyed; ULSD No. 2 with Additives; ULSD No. 2 w/o Additives; ULSD No. 2 Winter Blends; No 2 MV15 CFI; Export Diesel; No. 2 Fuel Oil; Heating Oil; No. 2 Non-Road Locomotive Marine, Dyed; MGO; ULSD; LSD; NRLM; CARB Diesel

Product code 0290MAR019

Chemical family Complex Hydrocarbon Substance

Recommended use Fuel.

Restrictions on use All others.

Manufacturer, Importer, or Responsible Party Name and Address

MARATHON PETROLEUM COMPANY LP
539 South Main Street
Findlay, OH 45840

SDS Information 1-419-421-3070 (M-F; 8-5 EST)

24 Hour Emergency Telephone CHEMTREC: 1-800-424-9300 (CCN# 13740)

2. HAZARD IDENTIFICATION

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification

Flammable liquids	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Chronic aquatic toxicity	Category 2

Hazards Not Otherwise Classified (HNOC)
Static accumulating flammable liquid

Label Elements

Danger

FLAMMABLE LIQUID AND VAPOR
May accumulate electrostatic charge and ignite or explode
May be fatal if swallowed and enters airways
Harmful if inhaled
Causes skin irritation
May cause respiratory irritation

May cause drowsiness or dizziness
Suspected of causing cancer
May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure
Toxic to aquatic life with long lasting effects

Appearance Yellow to Red Liquid **Physical State** Liquid **Odor** Hydrocarbon

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use only non-sparking tools.
Use explosion-proof electrical/ventilating/lighting/equipment
Take precautionary measures against static discharge
Do not breathe mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Wash hands and any possibly exposed skin thoroughly after handling
Avoid release to the environment

Precautionary Statements - Response
IF exposed or concerned: Get medical attention
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical attention
Wash contaminated clothing before reuse
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor if you feel unwell
If swallowed: Immediately call a poison center or doctor
Do NOT induce vomiting
In case of fire: Use water spray, fog or regular foam for extinction
Collect spillage

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container at an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

May contain up to 5% Biodiesel.

Composition Information

Name	CAS Number	% Concentration
No. 2 Diesel Fuel	68476-34-6	50-100
Kerosine (petroleum)	8008-20-6	0-50

Fuels, Diesel, C9-18-Alkane Branched and Linear	1159170-26-9	0-5
Alkanes, C10-C20 branched and linear	928771-01-1	0-5
Naphthalene	91-20-3	0.3-2.6

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First aid measures

General advice

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation

Remove to fresh air. If not breathing, utilize bag valve mask or other form of barrier device to institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. Get immediate medical attention.

Skin contact

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

Eye contact

Flush immediately with large amounts of water for at least 15 minutes. Gently remove contacts while flushing. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion

Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. Get immediate medical attention.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse effects

Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Prolonged or repeated exposure may cause adverse effects to the thymus, liver, and bone marrow. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

Indication of any immediate medical attention and special treatment needed

Notes to physician

INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.

INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam or water spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

Unsuitable extinguishing media

Do not use straight water streams to avoid spreading fire.

Specific hazards arising from the chemical

This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

Hazardous combustion products

Smoke, carbon monoxide, and other products of incomplete combustion.

Explosion data

Sensitivity to mechanical impact: No.

Sensitivity to static discharge: Yes.

Special protective equipment and precautions for firefighters

Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water spray and foam must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.

Additional firefighting tactics

FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles: if this is impossible, withdraw from area and let fire burn.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.

NFPA	Health 1	Flammability 2	Instability 0	Special Hazard -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. All contaminated surfaces will be slippery.

Protective equipment

Use personal protection measures as recommended in Section 8.

Emergency procedures

Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.

Environmental precautions

Avoid release to the environment. Avoid subsoil penetration.

Methods and materials for containment	Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.
Methods and materials for cleaning up	Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

7. HANDLING AND STORAGE

Safe handling precautions

NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. No smoking. Use only non-sparking tools. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Avoid repeated and prolonged skin contact. Use personal protection measures as recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.

Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.

Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.

A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.

Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).

Storage conditions	Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not store near an open flame, heat or other sources of ignition.
Incompatible materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Name	ACGIH TLV	OSHA PELS	NIOSH IDLH
No. 2 Diesel Fuel 68476-34-6	100 mg/m³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Kerosine (petroleum) 8008-20-6	200 mg/m³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m³	250 ppm

Notes: No further information available.

Engineering measures Local or general exhaust required in an enclosed area or with inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

Personal protective equipment

Eye protection Use goggles or face-shield if the potential for splashing exists.

Skin and body protection Wear neoprene, nitrile or PVA gloves to prevent skin contact. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

Respiratory protection Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Yellow to Red Liquid
Physical State Liquid
Color Yellow to Red
Odor Hydrocarbon
Odor Threshold No data available.

Property	Values (method)
pH	Not applicable
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	154-366 °C / 310-691 °F (ASTM D86)
Flash Point	58-76 °C / 136-168 °F (ASTM D93)
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	No data available.
Lower Flammability Limit:	No data available.
Explosion Limits	No data available.
Vapor Pressure	No data available.
Vapor Density	No data available.
Specific Gravity / Relative Density	0.82-0.86

Water Solubility	No data available.
Partition Coefficient	No data available.
Autoignition Temperature	No data available.
Decomposition Temperature	No data available.
Kinematic Viscosity	1.7-4.1 cSt @ 40°C (ASTM D445)
VOC Content (%)	No data available.

10. STABILITY AND REACTIVITY

Reactivity The product is non-reactive under normal conditions.

Chemical stability The material is stable at 70°F (21°C), 760 mmHg pressure.

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Will not occur.

Conditions to avoid Excessive heat, sources of ignition, open flame.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products None known under normal conditions of use. However, use in an area without adequate ventilation may result in hazardous levels of carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation Harmful if inhaled. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Breathing high concentrations of this material in a confined space or by intentional abuse can cause irregular heartbeats which can cause death.

Eye contact Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.

Skin contact Irritating to skin. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.

Ingestion May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
No. 2 Diesel Fuel 68476-34-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>1 - <5 mg/L (Rat) 4 h
Kerosine (petroleum) 8008-20-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Fuels, Diesel, C9-18-Alkane Branched and Linear 1159170-26-9	-	-	>1 - <5 mg/l (Rat) 4 h
Alkanes, C10-C20 branched and linear 928771-01-1	-	-	>1 - <5 mg/l (Rat) 4 h
Naphthalene 91-20-3	533 mg/kg (Mouse)	> 2000 mg/kg (Rabbit)	> 340 mg/m³ (Rat) 1 h

Immediate and delayed effects as well as chronic effects from short and long-term exposure

PETROLEUM MIDDLE DISTILLATES: Petroleum derived middle distillates have produced skin tumors in mice after repeated and prolonged skin contact. Additional studies indicated prolonged skin irritation contributes to tumor development. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and weight, and increased fetal resorptions at doses

toxic to the mother. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function. Repeated dermal application of petroleum gas oils resulted in decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis and lymphocyte depletion. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

NAPHTHALENE: Excessive exposure to naphthalene may cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Lifetime inhalation exposure of laboratory rodents to naphthalene resulted in cancers of the respiratory tract in male and female rats. A small increase in cancer of the lung was observed in female mice, but no evidence of lung cancer was observed in male mice. Long-term exposure to excessive airborne naphthalene concentrations may result in destruction of red blood cells, a condition referred to as hemolytic anemia.

DIESEL EXHAUST: The combustion of diesel fuels produces gases including carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur, and hydrocarbons that can be irritating and hazardous with overexposure. Long-term occupational overexposure to diesel exhaust and diesel exhaust particulate matter has been associated with an increased risk of respiratory disease, including lung cancer, and is characterized as a “known human carcinogen” by the International Agency for Research on Cancer (IARC), as “a reasonably anticipated human carcinogen” by the National Toxicology Program, and as “likely to be carcinogenic to humans” by the EPA, based upon animal and occupational exposure studies. However, uncertainty exists with these classifications because of deficiencies in the supporting occupational exposure/epidemiology studies, including reliable exposure estimates. Lifetime animal inhalation studies with pulmonary overloading exposure concentrations of diesel exhaust emissions have produced tumors and other adverse health effects. However, in more recent long-term animal inhalation studies of diesel exhaust emissions, no increase in tumor incidence and in fact a substantial reduction in adverse health effects along with significant reductions in the levels of hazardous material emissions were observed and are associated with fuel composition alterations coupled with new technology diesel engines.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and symptoms Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Prolonged or repeated exposure may cause damage to organs.

Acute toxicity Harmful if inhaled.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation None known.

Sensitization None known.

Mutagenic effects None known.

Carcinogenicity Suspected of causing cancer.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
No. 2 Diesel Fuel 68476-34-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Kerosine (petroleum) 8008-20-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

Reproductive toxicity None known.

Specific Target Organ Toxicity (STOT) - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Specific Target Organ Toxicity May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated

(STOT) - repeated exposure exposure.

Aspiration hazard May be fatal if swallowed or vomited and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Fish	Crustacea	Algae/aquatic plants
No. 2 Diesel Fuel 68476-34-6	96-hr LC50 = 35 mg/l Fathead minnow (flow-through)	48-hr EL50 = 6.4 mg/l Daphnia magna	-
Kerosine (petroleum) 8008-20-6	96-hr LL50 = 18-25 mg/l Fish	48-hr EL50 = 1.4-21 mg/l Invertebrates	72-hr EL50 = 5.0-11 mg/l Algae
Naphthalene 91-20-3	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	48-hr LC50 = 1.6 mg/l Daphnia magna	-

Persistence and degradability Expected to be inherently biodegradable.

Bioaccumulation Has the potential to bioaccumulate.

Mobility in soil May partition into air, soil and water.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Description of waste residues This material may be a flammable liquid waste.

Safe handling of wastes Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

Disposal of wastes / methods of disposal The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

Contaminated packaging disposal Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

UN/Identification No: NA 1993
UN Proper Shipping Name: Diesel Fuel
Transport Hazard Class(es): 3
Packing Group: III

IATA

UN/Identification No: UN 1202
UN Proper Shipping Name: Diesel Fuel
Transport Hazard Class(es): 3
Packing Group: III
ERG code: 3L

IMDG

UN/Identification No: UN 1202

UN Proper Shipping Name:	Diesel Fuel
Transport Hazard Class(es):	3
Packing Group:	III
EmS No:	F-E, S-E
Marine Pollutant:	Yes

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

15. REGULATORY INFORMATION

Regulatory Information

US TSCA Chemical Inventory This product and/or its components are listed on the TSCA Chemical Inventory or are exempt.

Canada DSL/NDSL Inventory This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

EPA Superfund Amendment & Reauthorization Act (SARA)

SARA Section 302 This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List above the de minimis threshold.

SARA Section 304 This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
Naphthalene 91-20-3	100 lb 45.4 kg

SARA Section 311/312 The following EPA hazard categories apply to this product:

Flammable
Hazard Not Otherwise Classified (HNOC)-Physical
Acute toxicity
Skin corrosion or irritation
Carcinogenicity
Specific target organ toxicity
Aspiration hazard

SARA Section 313 This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting
Naphthalene 91-20-3	0.1 % de minimis concentration

U.S. State Regulations

California Proposition 65 This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Name	California Proposition 65
No. 2 Diesel Fuel 68476-34-6	Engine exhaust, Carcinogen, initial date 10/01/90
Naphthalene 91-20-3	Carcinogen, initial date 04/19/02

For more information, go to www.P65Warnings.ca.gov.

State Right-To-Know Regulations The following component(s) of this material are identified on the regulatory lists below:

Name	New Jersey Right-To-Know	Pennsylvania Right-To-Know	Massachusetts Right-To Know
No. 2 Diesel Fuel 68476-34-6	Listed	Listed	Not Listed
Kerosine (petroleum) 8008-20-6	Listed	Listed	Listed
Naphthalene 91-20-3	Listed	Listed	Listed

16. OTHER INFORMATION

Prepared by Toxicology & Product Safety

NFPA

Revision Notes

Revision date 10/01/2020
Previous publish date 06/01/2016
Revised sections The following sections (§) have been updated:
3. COMPOSITION/INFORMATION ON INGREDIENTS
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
14. TRANSPORT INFORMATION
15. REGULATORY INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL CONTAINING UP TO 5% RENEWABLE HYDROTREATED DIESEL FUEL GRADE 61

3.22.1

EPA Designation: MVNRLM, Motor vehicle diesel fuel, 15 ppm sulfur

Cancels Previous Issues of Grade 61

PRODUCT PROPERTY	ASTM Test Method	Test Results Minimum	Maximum		Note
Renewable Fuel (volume %)			0	Origin	5
			5	Delivery	
Gravity API	D4052	30			
Flash Point, °F					
Pensky-Martin	D93	130			
Physical Distillation, °C(°F)	D86				4
50%			Report		
90%		282(540)	338(640)		
End Point			371(700)		
or Simulated Distillation, °C(°F)	D2887				4
50% recovered			Report		
90% recovered		300(572)	356(673)		
End Point			421(790)		
Color ASTM	D6045		2.5		
Color Visual		Undyed			
Viscosity, cSt @ 40°C (104°F)	D445	1.9	4.1		
Pour Point	D97				2
Cloud Point	D2500				2
Corrosion, 3 hrs. @ 50°C (122°F)	D130		1		
Total Sulfur, ppmwt	D5453		11	Origin	3
			14	Delivery	
Cetane Number	D613	40			
Aromatics (Volume %)	D1319		31.7		
or Aromatics by Cetane Index	D976	40			
Ash, wt.%	D482		0.01		
Carbon Residue: Ramsbottom on 10% Bottom	D524		0.35		
BS&W, vol.%	D2709 or equivalent		< 0.05		
Thermal stability, 90 minutes 150°CPad rating, DuPont scale			7		
OR					
Thermal stability	D6468				
Y/Green		73%			
W Unit		65%			
OR					
Oxidation stability, mg/100 ml	D2274		2.5		
Haze rating @ 25°C (77°F)	D4176 Procedure 2		2		
Nace Corrosion	TM0172	B+ (Origin)			
Electrical Conductivity, pS/m @ 21°C(70°F)	D2624		250		

PRODUCT SPECIFICATIONS
SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL CONTAINING UP TO 5% RENEWABLE HYDROTREATED DIESEL FUEL GRADE 61

3.22.2

Cancels Previous Issues of Grade 61

NOTES:

1. Additive requirements/restrictions - refer to section 3.2.
2. This schedule denotes the fluidity of the distillate at the time and place of origin.

Pour Point –August 1st through March 14th	Maximum: -18°C (-0.4°F).
Pour Point – March 15th through July 31st	Maximum: -12°C (10.4°F)
Cloud Point – August 1st through March 14th	Maximum: -9°C (15.8°F)
Cloud Point – March 15th through July 31st	Maximum: -7°C (19.4°F)

The referee method will be Pour point D97 and Cloud point D2500

3. Origin laboratory certifying sulfur content can qualify the test method used per EPA performance based testing criteria (See [W] ~~80.584~~ 1090 Subpart D).
4. Either physical or simulated distillation can be used.
5. Downstream of Meridian Mississippi May contain up to 5% renewable diesel as defined in section 3.2.7

Grade 61 is-designated for 5% renewable diesel fuel blending at Baton Rouge. 61 grade will only be allowed to originate as "clear", no renewable diesel fuel allowed, at Houston, Cedar Bayou, Hebert, Lake Charles, Krotz Springs and Baton Rouge. 61 grade will not be delivered out of the pipeline at any locations and will be regraded to 63 grade downstream of Baton Rouge.

6. Colonial will accept test methods results that are listed in ASTM D975 for all tests. Test methods listed in the table above are considered referee methods by Colonial Pipeline. Referee methods apply for any dispute.

Delivery test results may vary by the smaller of ASTM reproducibility for a given test or any test tolerance as allowed by state or EPA regulations at the point of delivery.

3.23.1 **SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL GRADE 62**

EPA Designation: MVNRLM, Motor vehicle diesel fuel, 15 ppm sulfur

Cancels Previous Issues of Grade 62

PRODUCT PROPERTY	ASTM Test Method	Test Results Minimum	Maximum		Note
Gravity API	D4052	30			
Flash Point, °F					
Pensky-Martin	D93	130		Origin	
		125.8		Delivery	
Physical Distillation, °C(°F)	D86				
50%			Report		4
90%		282(540)	338(640)		
End Point			371 (700)		
or Simulated Distillation, °C(°F)	D2887				4
50% recovered			Report		
90% recovered		300(572)	356(673)		
End Point			421(790)		
Color ASTM	D6045		2.5		
Color Visual		Undyed			
Viscosity, cSt @ 40°C (104°F)	D445	1.9	4.1		
Pour Point	D97				2
Cloud Point	D2500				2
Corrosion, 3 hrs. @ 50°C (122°F)	D130		1		
Total Sulfur, ppmwt	D5453		11	Origin	3
			14	Delivery	
Cetane Number	D613	40			
Aromatics (Volume %)	D1319		31.7		
or Aromatics by Cetane Index	D976	40			
Ash, wt.%	D482		0.01		
Carbon Residue: Ramsbottom					
on 10% Bottom	D524		0.35		
BS&W, vol.%	D2709				
	or equivalent		< 0.05		
Thermal stability, 90 minutes					
150°CPad rating,					
DuPont scale			7		
OR					
Thermal stability	D6468				
Y/Green		73%			
W Unit		65%			
OR					
Oxidation stability, mg/100 ml	D2274		2.5		
Haze rating @ 25°C (77°F)	D4176				
	Procedure 2		2		
Nace Corrosion	TM0172	B+ (Origin)			
Electrical					
Conductivity, pS/m @ 21°C(70°F)	D2624		250		

3.23.2 **SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL GRADE 62**

Cancels Previous Issues of Grade 62

NOTES:

1. Additive requirements/restrictions - refer to section 3.2.
2. This schedule denotes the fluidity of the distillate at the time and place of origin.

Pour Point –August 1st through March 14th	Maximum: -18°C (-0.4°F).
Pour Point – March 15th through July 31st	Maximum: -12°C (10.4°F)
Cloud Point – August 1st through March 14th	Maximum: -9°C (15.8°F)
Cloud Point – March 15th through July 31st	Maximum: -7°C (19.4°F)

3. Origin laboratory certifying sulfur content can qualify the test method used per EPA performance based testing criteria (See [W] ~~80.584~~ 1090 Subpart D).
4. Either physical or simulated distillation can be used.

5. Deliveries of 62 grade that are serviced through Colonial's breakout tank farms south of Greensboro which include Pelham, Atlanta, Athens, Belton, Spartanburg, and Charlotte may contain up to 5% Renewable Diesel.
6. Colonial will accept test methods results that are listed in ASTM D975 for all tests. Test methods listed in the table above are considered referee methods by Colonial Pipeline. Referee methods apply for any dispute.
7. Deliveries of 62 grade on lines #17, 22, 24, and Greensboro local deliveries may contain up to 5% Bio-Diesel and 5% Renewable Diesel.

Delivery test results may vary by the smaller of ASTM reproducibility for a given test or any test tolerance as allowed by state or EPA regulations at the point of delivery.

3.24.1 **SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL CONTAINING UP TO 5% RENEWABLE HYDROTREATED DIESEL FUEL GRADE 63**

EPA Designation: MVNRLM, Motor vehicle diesel fuel, 15 ppm sulfur

Cancels Previous Issues of Grade 63

PRODUCT PROPERTY	ASTM Test Method	Test Results Minimum	Maximum		Note
Renewable Fuel (volume %)			5		5
Gravity API	D4052	30			
Flash Point, °F					
Pensky-Martin	D93	130		Origin	
		125.8		Delivery	
Physical Distillation, °C(°F)	D86				4
50%			Report		
90%		282(540)	338(640)		
End Point			371 (700)		
or Simulated Distillation, °C(°F)	D2887				4
50% recovered			Report		
90% recovered		300(572)	356(673)		
End Point			421(790)		
Color ASTM	D6045		2.5		
Color Visual		Undyed			
Viscosity, cSt @ 40°C (104°F)	D445	1.9	4.1		
Pour Point	D97				2
Cloud Point	D2500				2
Corrosion, 3 hrs. @ 50°C (122°F)	D130		1		
Total Sulfur, ppmwt	D5453		11	Origin	3
			14	Delivery	
Cetane Number	D613	40			
Aromatics (Volume %)	D1319		31.7		
or Aromatics by Cetane Index	D976	40			
Ash, wt.%	D482		0.01		
Carbon Residue: Ramsbottom					
on 10% Bottom	D524		0.35		
BS&W, vol.%	D2709				
	or equivalent		< 0.05		
Thermal stability, 90 minutes					
150°CPad rating,					
DuPont scale			7		
OR					
Thermal stability	D6468				
Y/Green		73%			
W Unit		65%			
OR					
Oxidation stability, mg/100 ml	D2274		2.5		
Haze rating @ 25°C (77°F)	D4176				
	Procedure 2		2		
Nace Corrosion	TM0172	B+ (Origin)			
Electrical					
Conductivity, pS/m @ 21°C(70°F)	D2624		250		

3.24.2 **SPECIFICATIONS FOR FUNGIBLE 15 ppm SULFUR DIESEL FUEL CONTAINING UP TO 5% RENEWABLE HYDROTREATED DIESEL FUEL GRADE 63**

Cancels Previous Issues of Grade 63 **Test Results**

NOTES:

1. Additive requirements/restrictions - refer to section 3.2.
2. This schedule denotes the fluidity of the distillate at the time and place of origin.

Pour Point –August 1st through March 14th	Maximum: -18°C (-0.4°F).
Pour Point – March 15th through July 31st	Maximum: -12°C (10.4°F)
Cloud Point – August 1st through March 14th	Maximum: -9°C (15.8°F)
Cloud Point – March 15th through July 31st	Maximum: -7°C (19.4°F)

3. Origin laboratory certifying sulfur content can qualify the test method used per EPA performance based testing criteria (See [W] ~~80.584~~ 1090 Subpart D).
4. Either physical or simulated distillation can be used.
5. May contain up to 5% Renewable Diesel as defined in section 3.2.7.
6. Lines #17, 22, 24, and Greensboro local deliveries may contain up to 5% Bio-Diesel (Colonial Grade 49).

7. Colonial will accept test methods results that are listed in ASTM D975 for all tests. Test methods listed in the table above are considered referee methods by Colonial Pipeline. Referee methods apply for any dispute.

Delivery test results may vary by the smaller of ASTM reproducibility for a given test or any test tolerance as allowed by state or EPA regulations at the point of delivery.