CONSOLIDATED ENERGY COMPANY LLC
901 Main Street
Jesup, Iowa 50648

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME	**FUEL OIL #2**
CAS NUMBER	MIXTURE
MSDS NUMBER	5465
PRODUCT CODE	MULTIPLE
SYNONYM(S)	2 OIL, NO. 2 LOW SULFUR DIESEL, No. 2 LOW SULFUR DIESEL, DYED; No. 2 HIGH SULFUR DIESEL, DYED; NO. 2 LOW SULFUR FUEL; CARB DIESEL TF3; CARB DIESEL; HEATING OIL, PREMIUM DIESEL (LOW SULFUR), DIESEL FUEL, ARTIC DIESEL, DIESEL FUEL #2, DIESEL OIL, D-GRADE FUEL OIL, RAILROAD DIESEL, VIRGIN DIESEL, U.S. SOY FIELD DIESEL, U.S. SOY PLUS DIESEL, APPLICABLE TO ALL GRADES, PERFORMANCE GOLD PLUS DK45
INTENDED USE	FUEL
CHEMICAL FAMILY	PETROLEUM HYDORCARBONS
MANUFACTURE/ SUPPLIERS	Flint Hills Resources, LP P.O. Box 2917, Wichita, KS 67201 Frontier Oil and Refining Company, 4610 S. Ulster, Suite 200; Denver CO. 80237 Cenex, A division of CHS Cooperatives, P.O. Box 64089, Mail Station 525, St Paul, MN 55164 Citgo Petroleum Corporation, P.O. Box 3758. Tulsa, OK 74102 Exxommoblie Oil Corp., 3225 Gallows Road, Fairfax VA. 22037 Gary-Williams Energy Corp., 1207 Soverign Row. OKC, OK 73108 Lion Oil Co., 1000 McHenry St., ElDorado, AK 71730 Marathon Ashland Petroleum LLC., 539 South Main St., Findlay, OH 45840 Conoco/Phillips, Bartlesville, OK 74004 Valero Marketing and Supply Co., P.O. Box 500, San Antonio, TX 78292 F.C. Stone Trading, 10330 NW Prairieview RD., Kansas City, MO 64153 SRP, 8101 E. Prentice Ave., Suite 704, Greenwood Village, CO 80111 Western Petroleum Company, 9531 West 78th St., Eden Prairie, MN 55344 TransMontaigne Product Services, Inc, 370 S17th Street, Suite 2750, Denver, Co. 80202 Premcor Refining Group Inc., 8182 Maryland Ave. Clayton, MO 63105 Center Marketing Company, 600 Mason Ridge Center Drive, St. Louis, Mo. 63141 Apex Oil Co., 8235 Forsyth, 4th Floor, St Louis, Mo 63105

TELEPHONE NUMBERS-24 HOUR EMERGENCY ASSISTANCE

Chemtrec	800-633-8253
Consolidated Energy Company	800-399-1562

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration*	Exposure limits/Health Hazards
#2 Diesel	Mixture (68476-30-2)	100%-%weight	ND
Naphthalene	91-20-3	<1	10- ppm 8-Hour TWA (OSHA) 10- ppm 8-Hour TWA (ACGIH) 15- ppm 15-min STEL (ACGIH)
Benzene	71-43-2	0.01-0.1	1- ppm. 8-Hour TWA (OSHA) 5- ppm. 15-min STEL (OSHA) 0.5 ppm 8-Hour TWA (ACGIH) 2,5 ppm 15-min STEL (ACGIH)

*Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

COMPOSITION COMMENTS
This Material Data Sheet is intended to communicate potential health hazards and potential physical hazards associated with the product(s) covered by this sheet, and is not intended to communicate product specific information. For product specific information, contact your Pawnee Petroleum Products representative.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING!

HEATH HAZARDS
MAY BE IRRITATING TO THE SKIN, EYES AND RESPIRATORY TRACT
OVEREXPOSURE MAY CAUSE CNS DEPRESSION
ASPIRATION HAZARD IF SWALLOWED-CAN ENTER LUNGS AND CAUSE DAMAGE
POTENTIAL REPRODUCTIVE HAZARD
SKIN CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS
SEE “TOXICOLOGICAL INFORMATION” (SECTION 11) FOR MORE INFORMATION

FLAMMABILITY HAZARDS
COMBUSTIBLE
PER OSHA GUIDELINES, 29 CFR 1910.1200(c)

REACTIVITY HAZARDS
STABLE

POTENTIAL HEALTH EFFECTS, SKIN

MODERATELY IRRITATING. Repeated or prolonged skin contact may cause drying, reddening itching and cracking.

No significant effects are expected to occur following short-term exposure. Repeated or prolonged contact with large amounts of this material may result in absorption through the skin to produce toxic effects.

Contact with heated material may cause thermal burns.

POTENTIAL HEALTH EFFECTS, EYE

SLIGHTLY IRRITATING. Exposure to vapors, fumes or mists may cause irritation. May cause Slight transient irritation, lacrimation (tears) and a burning sensation in the eyes. Prolonged or Repeated exposure may cause irritation and conjunctivitis.

Contact with heated material may cause thermal burns, destruction of the eye tissue and possible permanent injury or blindness

POTENTIAL HEALTH EFFECTS, INHALATION

Petroleum mists at high exposure levels may be irritating to the nose, throat and lungs.

May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Overexposure to this material may cause systemic damage including target organ effects listed under "Toxicological Information" (Section 11).

Other specific symptoms of exposure are listed under "Toxicological Information" (Section 11).

POTENTIAL HEALTH EFFECTS, INGESTION

Practically non-toxic. Ingestion of large amounts may cause gastrointestinal disturbances. May cause irritation of the mouth, throat, and gastrointestinal tract. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

Aspiration into the lungs may cause chemical pneumonia and lung damage.

Exposure may cause central nervous systemic damage including target organ effects listed under "Toxicological Information" (Section 11)

4 FIRST AID MEASURES

SKIN

Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. GET IMMEDIATE MEDICAL ATTENTION.

Place contaminated clothing in closed container for storage until laundered or discarded. If clothing Is to be laundered, inform person performing operation of contaminant's hazardous properties. Discard contaminated leather goods.

EYE

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

INHALATION

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION

INGESTION

Do not induce vomiting because of danger or aspirating liquid into lungs, causing serious damage and chemical pneumonia. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be preformed only by qualified medical personnel.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

NOTES TO PHYSICAN

Gastric lavage may be indicated if ingested. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

5 FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS

Combustion may produce COx, NOx, SOx, reactive hydrocarbons, irritating vapors and hydrogen sulfide.

EXTINGUISHING MEDIA

Use water spray, dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.

BASIC FIRE FIGHTING PROCEDURES

Evacuate area and fight fire from safe distance.

If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop leak.

Use water to cool adjacent structures and to protect personnel. Shut off source flow if possible. Stay away from storage tank ends. Withdraw immediately in case of rising sound from venting safety device or any discoloration of storage tank due to fire.

Firefighters must wear NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

UNUSUAL FIRE & EXPLOSIN HAZARDS

Vapors may form explosive mixture with air. Vapors can travel to a source of ignition and flash back.

Explosion hazard if exposed to extreme heat or to physical or thermal shock.

Flash Point	> 125 *F (>52*C) PENSKY-MARTENS CLOSED CUP
Autoignition Temperature	494*F (257 *C)
Flammability Limits in Air, Lower, % by Volume	0.6%
Flammability Limits in Air, Upper, % by Volume	7.5%

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION

Eliminate and/or shut off ignition sources and keep ignition sources out of the area. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. Isolate for ½ mile in all directions if tank, railcar or tank truck is involved in fire. Evacuate area endangered by release as required. (See Exposure Control/Personal Protection – Section 8).

ENVIRONMENTAL PRECAUTIONS

Eliminate all sources of ignition. Isolate hazard areas and deny entry.

If material is released to the environment, take immediate steps to stop and contain release. Caution should be exercised regarding personnel safety and exposure to the released material. Notify local authorities and the National Response Center, if required.

SPILL OR LEAK PROCEDURE

Keep unnecessary people away. Isolate area for at least 25-50 meters (80-160 feet) to preserve public safety. For large spills, consider initial evacuation for at least 300 meters (1000 feet).

Keep ignition sources out of the area and shout off all ignition sources. Absorb spill with inert material (e.g. dry sand, or earth) then place in chemical waste container. Large spills: Dike far ahead of liquid spill for later disposal. Stop leak when safe to do so.

See Exposure Control/Personal Protection (Section 8).

7 HANDLING AND STORAGE

HANDLING

Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld, or reuse containers unless adequate precautions are taken against these hazards.

Do not eat, drink, or smoke in areas of use or storage.

STORAGE

Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid contact with strong oxidizers.

Empty containers may contain product residue. Do not reuse without adequate precautions.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Ventilation and other forms of engineering controls are the preferred means of controlling exposures.

EYE PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Wear chemical safety goggles and face shield. Have eye wash facilities readily available where eye contact can occur.

SKIN PROTECTION: PERSONAL PROTECTIVE EQUIPMENT (PPE)

Avoid skin contact with this material. Use appropriate chemical protective gloves when handling.

Use good personal hygiene.

RESPIRATORY PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

A NIOSH/MSHA approved air purifying respirator with an appropriate cartridge or canister, such as full face piece air purifying respirator equipped with an organic vapor cartridge, may be used in circumstances where airborne concentrations may exceed exposure limits. The use of air purifying respirators is not recommended where hydrogen sulfide levels may exceed exposure limits.
Air purifying respirators are limited by the oxygen levels in the work environment. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

9 PHYSICAL & CHEMICAL PROPERITES

ODOR AND APPEARANCE

CRYSTAL CLEAR TO PALE YELLOW, OR GREEN COLORED LIQUID WITH HYDROCARBIN ODOR; FOR TAX EXEMPT PURPOSES, THIS FUEL MAY CONTAIN RED DYE.

Boiling Point	325 – 700 *F (163-371 *C)
Specific Gravity	0.835 –0.9 at 60/60 *F
Melting Point	-20 *F (--29 *C)
Percent Volatile	100%
Vapor Pressure	2.6 mmHg AT 122 *F (50 *C)
Vapor Density	8 (AIR=1)
Bulk Density	ND
Solubility in Water	INSOLUBLE
Octanol/Water Partn	ND
Volatile Organic	ND
Pour Point	-20 to 10 *F (-29 to –12 *C) [Artic Diesel,-50 *F (< -45 *C)
pH Value	ND
Freezing Point	ND
Viscosity	32.6 – 40.1 SSU AT 100 *F (38 *C)
Evaporation Rate	ND
Molecular Formula	NA
Molecular Weight	ND
Chemical Family	HYDROCARBON MIXTURE
Odor Threshold	ND

10 STABILITY & REACTIVITY

STABILITY/INCOMPABILITY

Incompatible with oxidizing agents. See precautions under handling & Storage (Section 7).

HAZARDOUS REACTIONS/DECOMPOSITON PRODUCTS

Combustion may produce COx, NOx, SOx, reactive hydrocarbons, irritating vapors and hydrogen sulfide.

11 TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact

TOXICOLOGICAL DATA

Acute or chronic overexposure to this material or its components may cause systemic toxicity, including adverse effects to the following: liver and kidney.

Exposure to components of this material may cause the following specific symptoms, depending on the concentration and duration of exposure: irritation of the hair follicles and blockage of the sebaceous glands.

This material may contain benzene. Benzene is carcinogenic to laboratory animals when given by intubation or by inhalation. There is an association between occupational exposure to benzene and human leukemia. carcinogenic determination: IARC human positive and Animal suspected carcinogen; NTP known carcinogen; ACGIH suspected carcinogen; OSHA carcinogen. Acute benzene poisoning causes central nervous system depression. Chronic exposure affects the hematopoietic system causing blood disorders including anemia and pancytopenia. Mutagenic and clastogenic in mammalian and non-mammalian test systems. Reproductive or developmental toxicant only at doses that are maternally toxic, based on tests with animals.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as solvent or painter's syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

WARNING: The use of any hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of combustion products and inadequate oxygen levels.

This material has not been tested as a whole for all potential health effects. Use caution in handling to avoid exposure.

CARCINOGENICITY

IARC has determined that there is limited evidence for the carcinogenicity of fuel oil #2 in experimental animals and inadequate evidence in humans.

Lifetime exposure to whole diesel exhaust has been shown to cause cancer in laboratory animals. NIOSH recommends that whole diesel exhaust be regarded as a potential occupational carcinogen.

TERATOGENICITY, MUTAGENICITY, OTHER REPRODUCTIVE EFFECTS

This material contains components, which may cause adverse reproductive and/or developmental effects.

Pregnant women may be at increased risk from exposure. Consumption of alcoholic beverages may enhance toxic effects.

PRE-EXISTING CONDITIONS AGGRAVATED BY EXPOSURE

Pre-existing medical conditions which may be aggravated by exposure, include disorders of the skin, eye and respiratory system.

12 ECOLOGICAL INFORMATION

ND

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

This material, as supplied, when discarded or disposed of, is a hazardous waste according to Federal regulations (40CFR 261) due to its ignitability and benzene content. Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine, at the time of disposal, whether the material is a hazardous waste subject RCRA.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268, and 270. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make waste management information presented in this MSDA incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state and local regulations.

14 TRANSPORT INFORMATION

BILL OF LADING – BULK (U.S. DOT)

Fuel oil (No. 2), Combustible Liquid, NA 1993, PG III

BILL OF LADING – NON-BULK (U.S. DOT)

Non-Regulated

U.S. Department of Transportation (DOT) Requirements

General Transportation Information for Bulk Shipments

Proper Shipping Name	Fuel Oil (No.2)		
Hazard Class	Combustible Liquid	UN/NA Code	NA 1993
Packaging Group	PG III		
Labels Required	None		
Placards Required	Combustible Liquid, NA 1993		
Reportable Quantity	See Regulatory Information (Section 15)		

General Transportation Information for Non-Bulk Shipments

Proper Shipping Name	Non-Regulated		
Hazard Class	NA	UN/NA Code	NA
Packaging Group	NA		
Labels Required	NA		
Placards Required	NA		
Reportable Quantity	NA		

COMMENTS

Non-bulk shipments of this material are non-regulated foe domestic ground transportation when they meet requirements of 49 CFR 173.150(f).

The above description may not cover shipping in all cases, please consult 49 CFR 100-185 for specific shipping information.

15 REGULATORY INFORMATION

FEDERAL REGULATIONS

All ingredients are on the TSCA inventory, or are not required to be listed on the TSCA inventory. Consult OSHA's Benzene standard 29 CFR 1910.1028 for provisions on air monitoring, employee training, medical monitoring, etc.

A release of this material, as supplied, is exempt from reporting under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) by the petroleum exclusion. Releases may be reported to the National Response center (800-424-8802) under the Clean Water Act, 33 U.S.C. 1321 (b)(3) and (5). Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Failure to report may result in substantial civil and criminal penalties.

This material does not contain toxic chemicals (in excess of the applicable de minimus concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

This material contains one or more components designated as hazardous substances or toxic pollutants pursuant to the Federal Clean Water Act (40 CFR 116.4 Table A; 40 CFR 401.5). Any unpermitted introduction of this material into a facility stormwater or wastewater discharge may constitute a violation of the Clear Water Act. Facilities must notify the appropriate permitting agency prior to introducing this material into the aforementioned discharges.

This material contains one or more substances listed as hazardous, toxic, or flammable air pollutants under Section 112 of the Clear Air Act.

There may be specific regulations at the local, regional or state/provincial level that pertain to this material.

STATE REGULATIONS

SARA TITLE III RATINGS

Immediate Hazard:	X	Delayed Hazard:	X	Fire hazard:	X	Pressure Hazard:	-
Reactivity Hazard	-						

NFPA RATINGS

Health	1	Flammability	2	Reactivity	0	Special Hazards

HMIS RATINGS

Health	2*	Flammability	2	Reactivity	0

16 OTHER INFORMATION

DISCLAIMER

NOTICE: The information presented herein is based on data considered to be accurate as of the date of the preparation of this Material Safety Data Sheet. However, an MSDS may not be used as a commercial specification sheet of manufacture or seller, and no warranty or representation, expressed or implied, is made as the to accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.