MATERIAL SAFETY DATA SHEET

Trade Name:	PREMIUM DIESEL		
Chemical Name:	Fuels, Diesel #2	Date: 2/05/94	
CAS NO.:	CAS 68476346	Technical Contact:	COAST OIL COMPANY 408-251-0810
MSDS NUMBER:	PREMDIES.DOC	Chemtrec Emergency:	800-424-9300

MATERIAL HAZARD EVALUATION

(Per OSHA Hazard Communication
Standard [29 CFR Part 1910.1200]) (OHCS)

HMIS Rating[1]: Acute Health* 0 Flammability 2 Reactivity 0

*For acute and chronic health effects refer to the discussion in Section 2.0

1.0 Generic Composition/Components

Components	CAS #	%
Diesel Fuel #2	68476-34-6	99.5-100
Amine Substituted Resin	Trade Secret	0-0.5
Heavy Aromatic Naphtha	64742-94-5	
1-(2-hydroxyethyl)-2-alkyl (C-18)-2-imidazoline	61791-39-7	

INCLUDING:

HDS DISTILLATE, MIDDLE
Chemical Name: Distallates, Hydrodesulfurized Middle CAS 64742-80-9

GAS OIL, LIGHT
Chemical Name: Distillates, Strait Run Middle CAS 64741-44-2

KEROSENE
Chemical Name: Kerosene, Hydrodesulfurized CAS 8008-20-6

HYDRODESULFURIZED KEROSENE
Chemical Name: Kerosene, Hydrodesulfurized CAS 64742-81-0

CAT CRACKED DISTILLATE, LIGHT
Chemical Name: Distillates, Light Catalytic Cracked CAS 64741-59-9

TOTAL SULFUR <500.0PPM

[1] Hazard Rating: Least-0; Slight-1; Moderate-2; High-3; Extreme-4

**********EMERGENCY OVERVIEW**********

Pale Yellow Liquid

- COMBUSTIBLE
- HARMFUL OR FATAL IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE
- CAUSES SKIN IRRITATION
- MAY CAUSE CANCER BASED ON ANIMAL DATA

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2.0 Health Information

The health effects noted below are consistent with requirements under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

EYE CONTACT: Based on essentially similar product testing liquid is presumed to be minimally irritating to the eyes. Prolonged and repeated contact may be more irritating.

SKIN CONTACT: Based on essentially similar product testing liquid is presumed to be moderately irritating to the skin. Prolonged and repeated contact can cause defatting and drying of the skin which may result in severe skin irritation and dermatitis. If absorbed through the skin, this substance is considered practically non-toxic to internal organs.

INHALATION: Prolonged breathing of vapors can cause central nervous system effects. This hazard evaluation is based on data from similar materials.

INGESTION: If swallowed, this substance is considered practically non-toxic to internal organs. Because of the low viscosity of this substance, it can directly enter the lungs if it is swallowed (this is called aspiration). This can occur during the act of swallowing or when vomiting the substance. Once in the lungs, the substance is very difficult to remove and can cause severe injury to the lungs and death.

SIGNS AND SYMPTOMS:

Irritation as noted above. Early to moderate CNS (Central Nervous System) depression may be evidenced by giddiness, headache, dizziness and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin); in severe cases death may occur.

AGGRAVATED MEDICAL CONDITIONS:

Pre-existing skin and respiratory disorders may be aggravated by exposure to this product.

OTHER HEALTH EFFECTS:

Kidney damage may result following aspiration pneumonitis. Naphthalene did not cause cancer in lifetime studies in rats and mice conducted by NTP. See Section 5.0 for additional health information.

CARCINOGENICITY: This product contains a mixture of petroleum hydrocarbons called middle distillates (which means they boil between approximately 350F and 700F). Because of this broad description, many products are considered middle distillates yet they are produced by a variety of different petroleum refining processes. Toxicology data developed on some middle distillates caused skin cancer when repeatedly applied to mice over their lifetime. This product may contain some middle distillates found to cause those adverse effects.

Comment [DS1]: Page: 2

Comment [DS2]: Page: 2

3.0 Occupational Exposure Limits

	OSHA		ACGIH		OTHER
NO.	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	.
P*	100 PPM		100 PPM		
2	10 PPM		10 PPM	15 PPM	15 PPM**

*No OSHA or ACGIH limits established. Exposure limits as a guide only.
OSHA IDLH (5000 PPM).
**OSHA STEL.

4.0 Emergency and First Aid Procedures

EYE CONTACT: Flush eyes with water for 15 minutes. Remove contact lenses is worn. If irritation occurs, get medical attention.

SKIN CONTACT: Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

INGESTION: If swallowed, give water or milk to drink. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

NOTE TO PHYSICIAN:
Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

5.0 Supplemental Health Information

Kerosene has been shown to produce skin cancer in experimental animals upon repeated dermal application over the lifetime of the animals. Interim results from an ongoing mouse skin painting study with HYDRODESULFURIZED kerosene have reported tumor production. Petroleum hydrocarbons of similar composition and boiling range have been shown to produce kidney damage and tumors in male rats following prolonged inhalation exposures (not dissimilar from those effects seen in male rats exposed to various petroleum naphtha's and blended gasoline). Repeated high level dermal exposure of kerosene in rabbits produced extremely severe skin irritation. Post mortem examination of these animals revealed multi-focal necrosis of the liver. A kerosene-like material has been found to be mutagenic in the L5178Y mouse lymphoma assay with activation and to cause chromosome damage in the in vivo rat cytogenetics assay. HYDRODESULFURIZED kerosene has been found negative in both these assays.

Naphthalene was not mutagenic in the AMES test or mouse or rat cell transformation assay.

6.0 Physical Data

pH: NDA

Boiling Point: 176 - 370°C (348°-698°F)

Melting Point:	NA
Evaporation Rate (N-Butyl Acetate = 1):	Not Available
Appearance and odor:	Clear white liquid; kerosene odor.
Specific Gravity:	0.84 @ 15.6/15.6C (Typical)
Solubility:	Soluble in hydrocarbon solvents; insoluble in water
Vapor Pressure:	0.04 PSIA @ 40C
Vapor Density:	NDA (Air = 1)
VIS,cSt (40°F):	1.9

7.0 Fire and Explosion Hazards

Flash Point: (P-M) 140°F (60°C) Min.

Flammable Limits/% Volume in Air: Lower: 0.6 Upper: 4.7

Extinguishing Media:
Use water fog, foam, dry chemical or CO_2 . Do not use a direct stream of water. Product will float and can be reignited on surface of water.

Special Fire Fighting Procedures and Precautions:
Caution. Combustible. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots). Including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water. In the case of large fires, also cool surrounding equipment and structures with water.

Unusual Fire and Explosion Hazards:
Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.

8.0 Reactivity

Stability:	Stable
Hazardous Polymerization:	Will not occur

Conditions and Materials to Avoid:
Avoid Heat, sparks, flame and contact with strong oxidizing agents.

Hazardous Decomposition Products:
Thermal decomposition products are highly dependent on the combustion conditions. A complex mixture of airborne solid, liquid, particulates and gases will evolve when this material undergoes pyrolysis or combustion. Carbon monoxide and other unidentified organic compounds may be formed upon combustion.

9.0 Employee Protection

Respiratory Protection:
If exposure may or does exceed occupational limits (Section 3.0) use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

Skin Protection:
Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves.

Protective Clothing:
No special eye protection is routinely necessary. Wear chemical resistant gloves and other clothing to minimize contact.

Additional Protective Measures:
Use explosion-proof ventilation as required to control vapor concentrations.

10.0 Environmental Protection

CHEMTREC EMERGENCY NUMBER (24 HOUR): 800-424-9300 OR 202-483-7616

Accidental Release Procedures:
Caution. Combustible. *** *Large Spills* *** Eliminate potential sources of ignition. Wear appropriate respirator and other protective clothing. Shut off source of leak only if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material; place in non-leaking containers and seal tightly for proper disposal. Flush area with water to remove trace residue; dispose of flush solution as above. *** *Small Spills* *** Take up with an absorbent material and place in non-leaking containers for proper disposal.

U.S.A. regulations require reporting spills of this material that could reach any surface waters. The toll free number for the U.S. Coast Guard National Response Center is 800-424-8802.

11.0 Special Precautions:

Keep liquid and vapor away from heat, sparks and flame, surfaces that are sufficiently hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from the handling site; flash-fire can result. Keep containers closed when not in use. Use (only) with adequate ventilation. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse.

12.0 Transportation Requirements

Department of Transportation Classification: Class 3 (flammable liquid),III

The DOT information in this section is based upon an evaluation of the product against the requirements of 49 CFR 172 and 173 as revised by HM-181.

D.O.T. Proper Shipping Name: Gas Oil **D.O.T. Hazard Class:** Combustible Liquid

D.O.T. Packing Group: III **OTHER REQUIREMENTS:** UN1202, Guide 27

13.0 Other Regulatory Controls

SARA 311 CATEGORIES:
1) Immediate (Acute) Health Effects: Yes
2) Delayed (Chronic) Health Effects: Yes
3) Fire Hazard: Yes
4) Sudden Release of Pressure Hazard: No
5) Reactivity Hazard: No

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	21=TSCA Sect 4(e)
02=MASS RTK	12=CERCLA 302.4	22=TSCA Ssect 5(a) (2)
03=NTP Carcinogen	13=MN RTK	23=TSCA Sect 6
04=CA Prop 65-Carcin	14=ACGIH TWA	24=TSCA Sect 12(b)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	25=TSCA Sect 8(a)
06=IARC Group 1	16=ACGIH Calc TLV	26=TSCA Sect 8(d)
07=IARC Group 2A	17=OSHA PEL	27=TSCA Sect 4(a)
08=IRAC Group 2B `	18=DOT Marine Pollutant	28=Canadian WHMIS
09=SARA 302/304	19=Chevron TWA	29=OSHA CEILING
10=PA RTK	20=EPA Carcinogen	30=Chevron STEL

The following components of this material are found on the regulatory lists indicated.

KEROSINE is found on lists: 02, 10, 11

14.0 Stability and Reactivity

Hazardous Decomposition Products: NDA
Chemical Stability: Stable
Conditions to Avoid: NDA
Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Polymerization: Polymerization will not occur.

15.0 Toxicological Information

Eye Effects: Minimal effects clearing in less than 24 hours.

Skin Effects: Moderate irritation at 72 hours. (Moderate erythema). The dermal LD50 in rabbits is >5 ml/kg. This material was not a skin sensitizer in the Buehler Guinea Pig Sensitization Test.

Acute Oral Effects: The oral LD50 in rats is > 5 ml/kg.

Acute Inhalation Effects: The 4-hour inhalation LC50 in rats is greater than 5 mg/l. Additional Toxicology Information: The data above is obtained from studies sponsored by the American Petroleum Institute (API).

Chronic Effects/Carcinogenicity: Whole diesel engine exhaust was reviewed by the International Agency for Research on Cancer (IARC) in their Monograph 46 (1989). Evidence for causing cancer was considered sufficient in animals and limited in humans. IARC placed diesel exhaust in category 2A, considering it probably carcinogenic to humans.

The National Institute of Occupational Safety and Health (NIOSH) has recommended that whole diesel exhaust be regarded as potentially causing cancer. This recommendation was based on test results showing increased lung cancer in laboratory animals exposed to whole diesel exhaust. The excess risk of cancer for people exposed to diesel exhaust has not been determined as studies on exposed workers have been inconclusive. It is recommended that exposure to diesel exhaust be minimized to reduce the potential cancer risk.

16.0 Ecological Information

Ecotoxicity: NDA

Environmental Fate: NDA

17.0 Disposal Considerations

This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by USEPA under RCRA (40CFR261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

18.00 Special Notes

The information contained herein is based on the data available to us and is believed to be correct. However, Coast Oil Company makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Coast assumes no responsibility for injury from the use of the product described herein.

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

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