



John Duffy Energy Services
Traditional values, Modern solutions

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: LUK 93RFG 10% ETH UNL

Manufacturer Information:

Sunoco, Inc. (R&M)
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

Product Use:

Motor Fuel

Emergency Phone Numbers:

Chemtrec (800) 424-9300
Sunoco Inc. (800) 964-8861

Information:

Product Safety Information (888) 567-3066

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
LIGHT PETROLEUM DISTILLATE	8006-61-9	99.9 - 99.9
TOLUENE	108-88-3	0 - 30
XYLENE	1330-20-7	0 - 25
ETHYL ALCOHOL	64-17-5	10 - 10
CYCLOHEXANE	110-82-7	0 - 9
ETHYL BENZENE	100-41-4	0 - 5
N-HEXANE	110-54-3	0 - 5
NAPHTHALENE	91-20-3	0 - 5
1,2,4-TRIMETHYLBENZENE	95-63-6	0 - 5
BENZENE	71-43-2	0.1 - 1.3
CUMENE	98-82-8	0 - 1

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

	CAS No.	Governing Body	Exposure Limits		
BENZENE	71-43-2	ACGIH	STEL	2.5	ppm
BENZENE	71-43-2	OSHA	STEL	5	ppm
BENZENE	71-43-2	ACGIH	TWA	0.5	ppm
BENZENE	71-43-2	OSHA	TWA	1	ppm

CUMENE	98-82-8	ACGIH	TWA	50	ppm
CUMENE	98-82-8	OSHA	TWA	50	ppm
CYCLOHEXANE	110-82-7	ACGIH	TWA	100	ppm
CYCLOHEXANE	110-82-7	OSHA	TWA	300	ppm
ETHYL ALCOHOL	64-17-5	ACGIH	TWA	1000	ppm
ETHYL ALCOHOL	64-17-5	OSHA	TWA	1000	ppm
ETHYL BENZENE	100-41-4	ACGIH	STEL	125	ppm
ETHYL BENZENE	100-41-4	ACGIH	TWA	100	ppm
ETHYL BENZENE	100-41-4	OSHA	TWA	100	ppm
N-HEXANE	110-54-3	ACGIH	TWA	50	ppm
N-HEXANE	110-54-3	OSHA	TWA	500	ppm
NAPHTHALENE	91-20-3	ACGIH	STEL	15	ppm
NAPHTHALENE	91-20-3	ACGIH	TWA	10	ppm
NAPHTHALENE	91-20-3	OSHA	TWA	10	ppm
TOLUENE	108-88-3	NIOSH	STEL	150	ppm
TOLUENE	108-88-3	ACGIH	TWA	20	ppm
TOLUENE	108-88-3	OSHA	TWA	200	ppm
XYLENE	1330-20-7	ACGIH	STEL	150	ppm
XYLENE	1330-20-7	ACGIH	TWA	100	ppm
XYLENE	1330-20-7	OSHA	TWA	100	ppm
LIGHT PETROLEUM DISTILLATE	8006-61-9	ACGIH	STEL	500	ppm
LIGHT PETROLEUM DISTILLATE	8006-61-9	ACGIH	TWA	300	ppm

3. HAZARDS IDENTIFICATION

- **EMERGENCY OVERVIEW**

Danger! Extremely flammable liquid and vapor. Static accumulator. May form an ignitable vapor/air mixture. Vapors may cause flash fire or explosion. Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat, lungs and respiratory tract. Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage. Harmful if inhaled. Overexposure may lead to serious disturbances of heart rhythm and nervous system effects, including drowsiness, dizziness, nausea, headaches, paralysis, loss of consciousness and even death. May cause skin irritation. May cause eye irritation. Contains material or materials that can cause cancer. Contains material or materials that may cause birth defects. May cause target organ or system damage to the following: central nervous system, eye, kidney, liver, respiratory system, skin, blood, cardiovascular system, heart, peripheral nervous system, bone marrow,

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	1	3	0	
HMIS	2	3	0	X

- **POTENTIAL HEALTH EFFECTS**

- **PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

The following diseases or disorders may be aggravated by exposure to this product: skin, eye, blood forming organs, nervous system, respiratory system, lung (asthma-like conditions), cardiovascular system, liver, kidney,

▪ **INHALATION**

High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death). May cause serious disturbances of heart rhythm. Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat, lungs and respiratory tract. Solvent "huffing/sniffing" (abuse) or intentional prolonged overexposure to high levels of vapors can produce abnormal behavior, convulsions, hallucinations, delirium, nervous system damage, serious disturbances of heart rhythm and sudden death. Repeated excessive exposures may cause blood disorders such as anemia and leukemia. Contains a material that has been related to cancer in humans. See Section 15 for additional information.

LC50 (mg/l): no data

LC50 (mg/m3): no data

LC50 (ppm): no data

▪ **SKIN**

Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Draize Skin Score: no data Out of 8.0

LD50 (mg/kg): no data

▪ **EYES**

Moderately irritating to the eyes. Contact with the eye may cause redness, burning, tearing and/or blurred vision.

▪ **INGESTION**

Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage. Irritating to mouth, throat, and stomach. May produce central nervous system effects, which includes dizziness, loss of balance and coordination, unconsciousness, coma and even death. Contains material or materials that can cause birth defects.

LD50 (g/kg): no data

4. FIRST AID MEASURES

• **INHALATION**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

• **SKIN**

Immediately flush with large amounts of water for 20 minutes, use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get prompt medical attention. Injection injuries may not appear serious at first but within a few hours, without proper treatment, the area will become swollen, discolored and extremely painful. Wash clothing before reuse.

• **EYES**

Flush eye with water for 20 minutes. Get medical attention.

• **INGESTION**

If swallowed, immediately contact a physician or Poison Control Center. Never give anything by mouth to an intoxicated, unconscious or convulsing person. Get immediate medical attention. Do not induce vomiting!

5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**

The following media may be used to extinguish a fire involving this material: Water spray; Regular foam; Dry chemical; Carbon dioxide;

- **FIRE FIGHTING INSTRUCTIONS**

Use water spray to cool fire exposed tanks and containers. Wear structural fire fighting gear. The use of fresh air equipment such as Self Contained Breathing Apparatus (SCBA) or Supplied Air Respirators should be worn for fire fighting if exposure or potential exposure to products of combustion is expected.

- **FLAMMABLE PROPERTIES**

STATIC ACCUMULATOR. This liquid may form an ignitable vapor-air mixture in closed tanks or containers.

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point				MINUS 40 EST'D	F	N/A
Autoignition Temperature				536 ESTIMATED	F	N/A
Lower Explosion Limit	1.5				%	N/A
Upper Explosion Limit	7.6				%	N/A

6. ACCIDENTAL RELEASE MEASURES

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Do not use spark-generating metals for sweeping up spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Vapor can be controlled using a water fog. Water streams should not be directed to the liquid as this will cause the liquid to boil and generate more vapor. Keep personnel upwind from leak. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required.

7. HANDLING AND STORAGE

- **HANDLING**

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Use only in a well-ventilated area. STATIC ACCUMULATOR. This liquid may form an ignitable vapor-air mixture in closed tanks or containers. This liquid may accumulate static electricity even when transferred into properly grounded containers. Bonding and grounding may be insufficient to remove static electricity. Static electricity accumulation may be significantly increased by the presence of small quantities of water. Always bond receiving container to the fill pipe before and during loading, following NFPA-77 and/or API RP 2003 requirements. Automatic gauging devices and other floats in vessels or tanks which contain static accumulating liquids should be electrically bonded to the shell. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep the nozzle in contact with the container throughout the loading process. Do not fill any portable containers in or on a vehicle. Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e. loading this material in tanks or shipping compartments that previously contained middle distillates or similar products). Non-equilibrium conditions may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigating efforts, including

bonding and grounding. Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Never siphon by mouth. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioned, or properly disposed of. A static electrical discharge can accumulate when this material is flowing through pipes, nozzles or filters or when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather. Always bond receiving containers to the fill pipe before and during loading. Always keep nozzle in contact with the container throughout the loading process. Do not fill any portable container in or on the vehicle.

- **STORAGE**

Keep away from heat, sparks, and flame. Keep container closed when not in use. Store in a cool dry place. Consult NFPA and / or OSHA codes for additional information. NFPA class IB storage. Flash point is less than 73 degrees F and boiling point is greater than or equal to 100 degrees F. Outside or detached storage is preferred.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use with adequate ventilation. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

- **PERSONAL PROTECTION**

- **EYE PROTECTION**

Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

- **GLOVES or HAND PROTECTION**

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Nitrile; Viton; Teflon;

- **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

- **OTHER**

Where splashing is possible, full chemically resistant protective clothing and boots are required. The following materials are acceptable for use as protective clothing: Nitrile; Viton; Teflon; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse. For non-fire emergencies, positive pressure SCBA and structural firefighter's protective clothing will provide only limited protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	CLEAR LIQUID.	
Boiling Point		F	<100 - 430	
Bulk Density		lb/gal	no data	
Liquid Conductivity		pS/m	< 50 (varies)	
Melting Point		F	no data	
Molecular Weight		g/mole	no data	
Octanol/Water Coefficient		N/A	no data	
pH		N/A	no data	
Specific Gravity	0.74	N/A		
Solubility In Water		wt %	NIL TO 15%	
Odor		N/A	GASOLINE ODOR.	
Odor Threshold		ppm	15 EST.	
Vapor Pressure		mmHg	325 - 525	@ 20 C
Viscosity (F)		SUS	no data	
Viscosity (C)		CsT	no data	
% Volatile	100	wt %		

10. STABILITY AND REACTIVITY

- **STABILITY**
Stable
- **CONDITIONS TO AVOID**
Avoid heat, sparks and open flame. Avoid static discharge.
- **INCOMPATIBILITY**
The following materials are incompatible with this product: Strong oxidizers Alkaline materials; Acids; Chlorine; Concentrated oxygen; Halogens and halogenated compounds; Hydrogen peroxide;
- **HAZARDOUS DECOMPOSITION PRODUCTS**
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
Will not polymerize.

11. ECOLOGICAL INFORMATION

Gasoline spills are toxic to fish and aquatic flora.

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
DOT	Ground	Ethanol in Gasoline Mixture

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
DOT	Ground	3 (Flammable liquid)	UN 3475	Flammable Liquid

14. REGULATORY INFORMATION

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Maximum Wt%: Toulene- CAS Number 108-88-3, 35%; Xylene- CAS Number 1330-20-7. 29%; Cyclohexane- CAS Number 110-82-7, 9.5%; Ethyl benzene- CAS Number 100-41-4, 6%; N-Hexane- CAS Number 110-54-3, 4.5%; Naphthalene- CAS Number 91-20-3, 8%; 1,2,4-Trimethylbenzene- CAS Number 95-63-6, 6%; Benzene- CAS Number 71-43-2, 1.5%. The remaining Sara 313 components listed in Section 14 of the MSDS are less than the reported de minimis levels. This information must be included in all MSDSs that are copied and distributed for this material.

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
ACGIH - Occupational Exposure Limits - Carcinogens	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYL ALCOHOL	64-17-5
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - Carcinogens	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - Carcinogens	TOLUENE	108-88-3
ACGIH - Occupational Exposure Limits - Carcinogens	XYLENE	1330-20-7
ACGIH - Occupational Exposure Limits - TWAs	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - TWAs	CUMENE	98-82-8
ACGIH - Occupational Exposure Limits - TWAs	CYCLOHEXANE	110-82-7
ACGIH - Occupational Exposure Limits - TWAs	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - TWAs	N-HEXANE	110-54-3
ACGIH - Occupational Exposure Limits - TWAs	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - TWAs	TOLUENE	108-88-3
ACGIH - Occupational Exposure Limits - TWAs	XYLENE	1330-20-7
ACGIH - Short Term Exposure Limits	BENZENE	71-43-2
ACGIH - Short Term Exposure Limits	ETHYL ALCOHOL	64-17-5
ACGIH - Short Term Exposure Limits	ETHYL BENZENE	100-41-4
ACGIH - Short Term Exposure Limits	NAPHTHALENE	91-20-3
ACGIH - Short Term Exposure Limits	XYLENE	1330-20-7
ACGIH - Skin Absorption Designation	BENZENE	71-43-2
ACGIH - Skin Absorption Designation	N-HEXANE	110-54-3
ACGIH - Skin Absorption Designation	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - High Risk Haz Air Pollutants	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - Organic HAPs	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - Organic HAPs	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - Organic HAPs	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - Organic HAPs	N-HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	TOLUENE	108-88-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	XYLENE	1330-20-7
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	CYCLOHEXANE	110-82-7
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	ETHYL BENZENE	100-41-4

CAA (Clean Air Act) - HON Rule - SOCM Chemicals	N-HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	TOLUENE	108-88-3
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	XYLENE	1330-20-7
CAA (Clean Air Act) - VOCs in SOCM	BENZENE	71-43-2
CAA (Clean Air Act) - VOCs in SOCM	CUMENE	98-82-8
CAA (Clean Air Act) - VOCs in SOCM	CYCLOHEXANE	110-82-7
CAA (Clean Air Act) - VOCs in SOCM	ETHYL ALCOHOL	64-17-5
CAA (Clean Air Act) - VOCs in SOCM	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - VOCs in SOCM	TOLUENE	108-88-3
CAA (Clean Air Act) - VOCs in SOCM	XYLENE	1330-20-7
CAA - 1990 Hazardous Air Pollutants	BENZENE	71-43-2
CAA - 1990 Hazardous Air Pollutants	CUMENE	98-82-8
CAA - 1990 Hazardous Air Pollutants	ETHYL BENZENE	100-41-4
CAA - 1990 Hazardous Air Pollutants	N-HEXANE	110-54-3
CAA - 1990 Hazardous Air Pollutants	NAPHTHALENE	91-20-3
CAA - 1990 Hazardous Air Pollutants	TOLUENE	108-88-3
CAA - 1990 Hazardous Air Pollutants	XYLENE	1330-20-7
California - Prop. 65 - Developmental Toxicity	BENZENE	71-43-2
California - Prop. 65 - Developmental Toxicity	ETHYL ALCOHOL	64-17-5
California - Prop. 65 - Developmental Toxicity	TOLUENE	108-88-3
California - Prop. 65 - Reproductive - Female	TOLUENE	108-88-3
California - Prop. 65 - Reproductive - Male	BENZENE	71-43-2
California - Proposition 65 - Carcinogens List	BENZENE	71-43-2
California - Proposition 65 - Carcinogens List	ETHYL BENZENE	100-41-4
California - Proposition 65 - Carcinogens List	NAPHTHALENE	91-20-3
Canada - CEPA - Sch. I - List of Toxic Substances	BENZENE	71-43-2
Canada - WHMIS - Ingredient Disclosure	1,2,4-TRIMETHYLBENZENE	95-63-6
Canada - WHMIS - Ingredient Disclosure	CYCLOHEXANE	110-82-7
Canada - WHMIS - Ingredient Disclosure	ETHYL ALCOHOL	64-17-5
Canada - WHMIS - Ingredient Disclosure	ETHYL BENZENE	100-41-4
Canada - WHMIS - Ingredient Disclosure	N-HEXANE	110-54-3
Canada - WHMIS - Ingredient Disclosure	TOLUENE	108-88-3
CERCLA/SARA - Haz Substances and their RQs	BENZENE	71-43-2
CERCLA/SARA - Haz Substances and their RQs	CUMENE	98-82-8
CERCLA/SARA - Haz Substances and their RQs	CYCLOHEXANE	110-82-7
CERCLA/SARA - Haz Substances and their RQs	ETHYL BENZENE	100-41-4
CERCLA/SARA - Haz Substances and their RQs	N-HEXANE	110-54-3
CERCLA/SARA - Haz Substances and their RQs	NAPHTHALENE	91-20-3
CERCLA/SARA - Haz Substances and their RQs	TOLUENE	108-88-3
CERCLA/SARA - Haz Substances and their RQs	XYLENE	1330-20-7
CERCLA/SARA - Section 313 - Emission Reporting	1,2,4-TRIMETHYLBENZENE	95-63-6
CERCLA/SARA - Section 313 - Emission Reporting	BENZENE	71-43-2
CERCLA/SARA - Section 313 - Emission Reporting	CUMENE	98-82-8
CERCLA/SARA - Section 313 - Emission Reporting	CYCLOHEXANE	110-82-7
CERCLA/SARA - Section 313 - Emission Reporting	ETHYL BENZENE	100-41-4
CERCLA/SARA - Section 313 - Emission Reporting	N-HEXANE	110-54-3
CERCLA/SARA - Section 313 - Emission Reporting	NAPHTHALENE	91-20-3
CERCLA/SARA - Section 313 - Emission Reporting	TOLUENE	108-88-3
CERCLA/SARA - Section 313 - Emission Reporting	XYLENE	1330-20-7
CWA (Clean Water Act) - Hazardous Substances	BENZENE	71-43-2
CWA (Clean Water Act) - Hazardous Substances	CYCLOHEXANE	110-82-7
CWA (Clean Water Act) - Hazardous Substances	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Hazardous Substances	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Hazardous Substances	TOLUENE	108-88-3
CWA (Clean Water Act) - Hazardous Substances	XYLENE	1330-20-7

CWA (Clean Water Act) - Priority Pollutants	BENZENE	71-43-2
CWA (Clean Water Act) - Priority Pollutants	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Priority Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Priority Pollutants	TOLUENE	108-88-3
CWA (Clean Water Act) - Toxic Pollutants	BENZENE	71-43-2
CWA (Clean Water Act) - Toxic Pollutants	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Toxic Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Toxic Pollutants	TOLUENE	108-88-3
DEA - List II Essential Chemicals	TOLUENE	108-88-3
IARC - Group 1 (carcinogenic to humans)	BENZENE	71-43-2
IARC - Group 1 (carcinogenic to humans)	ETHYL ALCOHOL	64-17-5
IARC - Group 2B (Possibly carcinogenic to humans)	ETHYL BENZENE	100-41-4
IARC - Group 2B (Possibly carcinogenic to humans)	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
IARC - Group 2B (Possibly carcinogenic to humans)	NAPHTHALENE	91-20-3
IARC - Group 3 (not classifiable)	TOLUENE	108-88-3
IARC - Group 3 (not classifiable)	XYLENE	1330-20-7
Inventory - Australia (AICS)	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - Australia (AICS)	BENZENE	71-43-2
Inventory - Australia (AICS)	CUMENE	98-82-8
Inventory - Australia (AICS)	CYCLOHEXANE	110-82-7
Inventory - Australia (AICS)	ETHYL ALCOHOL	64-17-5
Inventory - Australia (AICS)	ETHYL BENZENE	100-41-4
Inventory - Australia (AICS)	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - Australia (AICS)	N-HEXANE	110-54-3
Inventory - Australia (AICS)	NAPHTHALENE	91-20-3
Inventory - Australia (AICS)	TOLUENE	108-88-3
Inventory - Australia (AICS)	XYLENE	1330-20-7
Inventory - Canada - Domestic Substances List	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - Canada - Domestic Substances List	BENZENE	71-43-2
Inventory - Canada - Domestic Substances List	CUMENE	98-82-8
Inventory - Canada - Domestic Substances List	CYCLOHEXANE	110-82-7
Inventory - Canada - Domestic Substances List	ETHYL ALCOHOL	64-17-5
Inventory - Canada - Domestic Substances List	ETHYL BENZENE	100-41-4
Inventory - Canada - Domestic Substances List	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - Canada - Domestic Substances List	N-HEXANE	110-54-3
Inventory - Canada - Domestic Substances List	NAPHTHALENE	91-20-3
Inventory - Canada - Domestic Substances List	TOLUENE	108-88-3
Inventory - Canada - Domestic Substances List	XYLENE	1330-20-7
Inventory - China	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - China	BENZENE	71-43-2
Inventory - China	CUMENE	98-82-8
Inventory - China	CYCLOHEXANE	110-82-7
Inventory - China	ETHYL ALCOHOL	64-17-5
Inventory - China	ETHYL BENZENE	100-41-4
Inventory - China	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - China	N-HEXANE	110-54-3
Inventory - China	NAPHTHALENE	91-20-3
Inventory - China	TOLUENE	108-88-3
Inventory - China	XYLENE	1330-20-7
Inventory - European EINECS Inventory	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - European EINECS Inventory	BENZENE	71-43-2
Inventory - European EINECS Inventory	CUMENE	98-82-8

Inventory - European EINECS Inventory	CYCLOHEXANE	110-82-7
Inventory - European EINECS Inventory	ETHYL ALCOHOL	64-17-5
Inventory - European EINECS Inventory	ETHYL BENZENE	100-41-4
Inventory - European EINECS Inventory	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - European EINECS Inventory	N-HEXANE	110-54-3
Inventory - European EINECS Inventory	NAPHTHALENE	91-20-3
Inventory - European EINECS Inventory	TOLUENE	108-88-3
Inventory - European EINECS Inventory	XYLENE	1330-20-7
Inventory - Japan - (ENCS)	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - Japan - (ENCS)	BENZENE	71-43-2
Inventory - Japan - (ENCS)	CUMENE	98-82-8
Inventory - Japan - (ENCS)	CYCLOHEXANE	110-82-7
Inventory - Japan - (ENCS)	ETHYL ALCOHOL	64-17-5
Inventory - Japan - (ENCS)	ETHYL BENZENE	100-41-4
Inventory - Japan - (ENCS)	N-HEXANE	110-54-3
Inventory - Japan - (ENCS)	NAPHTHALENE	91-20-3
Inventory - Japan - (ENCS)	TOLUENE	108-88-3
Inventory - Japan - (ENCS)	XYLENE	1330-20-7
Inventory - Korea - Existing and Evaluated	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - Korea - Existing and Evaluated	BENZENE	71-43-2
Inventory - Korea - Existing and Evaluated	CUMENE	98-82-8
Inventory - Korea - Existing and Evaluated	CYCLOHEXANE	110-82-7
Inventory - Korea - Existing and Evaluated	ETHYL ALCOHOL	64-17-5
Inventory - Korea - Existing and Evaluated	ETHYL BENZENE	100-41-4
Inventory - Korea - Existing and Evaluated	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - Korea - Existing and Evaluated	N-HEXANE	110-54-3
Inventory - Korea - Existing and Evaluated	NAPHTHALENE	91-20-3
Inventory - Korea - Existing and Evaluated	TOLUENE	108-88-3
Inventory - Korea - Existing and Evaluated	XYLENE	1330-20-7
Inventory - New Zealand	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - New Zealand	BENZENE	71-43-2
Inventory - New Zealand	CUMENE	98-82-8
Inventory - New Zealand	CYCLOHEXANE	110-82-7
Inventory - New Zealand	ETHYL ALCOHOL	64-17-5
Inventory - New Zealand	ETHYL BENZENE	100-41-4
Inventory - New Zealand	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - New Zealand	N-HEXANE	110-54-3
Inventory - New Zealand	NAPHTHALENE	91-20-3
Inventory - New Zealand	TOLUENE	108-88-3
Inventory - New Zealand	XYLENE	1330-20-7
Inventory - Philippines Inventory (PICCS)	1,2,4-TRIMETHYLBENZENE	95-63-6
Inventory - Philippines Inventory (PICCS)	BENZENE	71-43-2
Inventory - Philippines Inventory (PICCS)	CUMENE	98-82-8
Inventory - Philippines Inventory (PICCS)	CYCLOHEXANE	110-82-7
Inventory - Philippines Inventory (PICCS)	ETHYL ALCOHOL	64-17-5
Inventory - Philippines Inventory (PICCS)	ETHYL BENZENE	100-41-4
Inventory - Philippines Inventory (PICCS)	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - Philippines Inventory (PICCS)	N-HEXANE	110-54-3
Inventory - Philippines Inventory (PICCS)	NAPHTHALENE	91-20-3
Inventory - Philippines Inventory (PICCS)	TOLUENE	108-88-3
Inventory - Philippines Inventory (PICCS)	XYLENE	1330-20-7
Inventory - TSCA - Sect. 8(b) Inventory	1,2,4-TRIMETHYLBENZENE	95-63-6

Inventory - TSCA - Sect. 8(b) Inventory	BENZENE	71-43-2
Inventory - TSCA - Sect. 8(b) Inventory	CUMENE	98-82-8
Inventory - TSCA - Sect. 8(b) Inventory	CYCLOHEXANE	110-82-7
Inventory - TSCA - Sect. 8(b) Inventory	ETHYL ALCOHOL	64-17-5
Inventory - TSCA - Sect. 8(b) Inventory	ETHYL BENZENE	100-41-4
Inventory - TSCA - Sect. 8(b) Inventory	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Inventory - TSCA - Sect. 8(b) Inventory	N-HEXANE	110-54-3
Inventory - TSCA - Sect. 8(b) Inventory	NAPHTHALENE	91-20-3
Inventory - TSCA - Sect. 8(b) Inventory	TOLUENE	108-88-3
Inventory - TSCA - Sect. 8(b) Inventory	XYLENE	1330-20-7
Massachusetts - Right To Know List	1,2,4-TRIMETHYLBENZENE	95-63-6
Massachusetts - Right To Know List	BENZENE	71-43-2
Massachusetts - Right To Know List	CUMENE	98-82-8
Massachusetts - Right To Know List	CYCLOHEXANE	110-82-7
Massachusetts - Right To Know List	ETHYL ALCOHOL	64-17-5
Massachusetts - Right To Know List	ETHYL BENZENE	100-41-4
Massachusetts - Right To Know List	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
Massachusetts - Right To Know List	N-HEXANE	110-54-3
Massachusetts - Right To Know List	NAPHTHALENE	91-20-3
Massachusetts - Right To Know List	TOLUENE	108-88-3
Massachusetts - Right To Know List	XYLENE	1330-20-7
New Jersey - Department of Health RTK List	1,2,4-TRIMETHYLBENZENE	95-63-6
New Jersey - Department of Health RTK List	BENZENE	71-43-2
New Jersey - Department of Health RTK List	CUMENE	98-82-8
New Jersey - Department of Health RTK List	CYCLOHEXANE	110-82-7
New Jersey - Department of Health RTK List	ETHYL ALCOHOL	64-17-5
New Jersey - Department of Health RTK List	ETHYL BENZENE	100-41-4
New Jersey - Department of Health RTK List	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
New Jersey - Department of Health RTK List	N-HEXANE	110-54-3
New Jersey - Department of Health RTK List	NAPHTHALENE	91-20-3
New Jersey - Department of Health RTK List	TOLUENE	108-88-3
New Jersey - Department of Health RTK List	XYLENE	1330-20-7
New Jersey - Env Hazardous Substances List	1,2,4-TRIMETHYLBENZENE	95-63-6
New Jersey - Env Hazardous Substances List	BENZENE	71-43-2
New Jersey - Env Hazardous Substances List	CUMENE	98-82-8
New Jersey - Env Hazardous Substances List	CYCLOHEXANE	110-82-7
New Jersey - Env Hazardous Substances List	ETHYL BENZENE	100-41-4
New Jersey - Env Hazardous Substances List	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
New Jersey - Env Hazardous Substances List	N-HEXANE	110-54-3
New Jersey - Env Hazardous Substances List	NAPHTHALENE	91-20-3
New Jersey - Env Hazardous Substances List	TOLUENE	108-88-3
New Jersey - Env Hazardous Substances List	XYLENE	1330-20-7
New Jersey - Special Hazardous Substances	BENZENE	71-43-2
New Jersey - Special Hazardous Substances	CUMENE	98-82-8
New Jersey - Special Hazardous Substances	CYCLOHEXANE	110-82-7
New Jersey - Special Hazardous Substances	ETHYL ALCOHOL	64-17-5
New Jersey - Special Hazardous Substances	ETHYL BENZENE	100-41-4
New Jersey - Special Hazardous Substances	LIGHT PETROLEUM	8006-61-9
	DISTILLATE	
New Jersey - Special Hazardous Substances	N-HEXANE	110-54-3
New Jersey - Special Hazardous Substances	NAPHTHALENE	91-20-3
New Jersey - Special Hazardous Substances	TOLUENE	108-88-3

New Jersey - Special Hazardous Substances	XYLENE	1330-20-7
NTP - Report on Carcinogens - Known Carcinogens	BENZENE	71-43-2
NTP - Report on Carcinogens - Suspect Carcinogens	NAPHTHALENE	91-20-3
OSHA - Final PELs - Ceiling Limits	BENZENE	71-43-2
OSHA - Final PELs - Ceiling Limits	TOLUENE	108-88-3
OSHA - Final PELs - Short Term Exposure Limits	BENZENE	71-43-2
OSHA - Final PELs - Skin Notations	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	BENZENE	71-43-2
OSHA - Final PELs - Time Weighted Averages	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	CYCLOHEXANE	110-82-7
OSHA - Final PELs - Time Weighted Averages	ETHYL ALCOHOL	64-17-5
OSHA - Final PELs - Time Weighted Averages	ETHYL BENZENE	100-41-4
OSHA - Final PELs - Time Weighted Averages	N-HEXANE	110-54-3
OSHA - Final PELs - Time Weighted Averages	NAPHTHALENE	91-20-3
OSHA - Final PELs - Time Weighted Averages	TOLUENE	108-88-3
OSHA - Final PELs - Time Weighted Averages	XYLENE	1330-20-7
OSHA - Hazard Communication Carcinogens	BENZENE	71-43-2
OSHA - Hazard Communication Carcinogens	ETHYL ALCOHOL	64-17-5
OSHA - Hazard Communication Carcinogens	ETHYL BENZENE	100-41-4
OSHA - Hazard Communication Carcinogens	LIGHT PETROLEUM DISTILLATE	8006-61-9
OSHA - Hazard Communication Carcinogens	NAPHTHALENE	91-20-3
OSHA - Specifically Regulated Carcinogens	BENZENE	71-43-2
Pennsylvania - RTK (Right to Know) List	1,2,4-TRIMETHYLBENZENE	95-63-6
Pennsylvania - RTK (Right to Know) List	BENZENE	71-43-2
Pennsylvania - RTK (Right to Know) List	CUMENE	98-82-8
Pennsylvania - RTK (Right to Know) List	CYCLOHEXANE	110-82-7
Pennsylvania - RTK (Right to Know) List	ETHYL ALCOHOL	64-17-5
Pennsylvania - RTK (Right to Know) List	ETHYL BENZENE	100-41-4
Pennsylvania - RTK (Right to Know) List	N-HEXANE	110-54-3
Pennsylvania - RTK (Right to Know) List	NAPHTHALENE	91-20-3
Pennsylvania - RTK (Right to Know) List	TOLUENE	108-88-3
Pennsylvania - RTK (Right to Know) List	XYLENE	1330-20-7
Pennsylvania - RTK - Environmental Hazard List	1,2,4-TRIMETHYLBENZENE	95-63-6
Pennsylvania - RTK - Environmental Hazard List	BENZENE	71-43-2
Pennsylvania - RTK - Environmental Hazard List	CUMENE	98-82-8
Pennsylvania - RTK - Environmental Hazard List	CYCLOHEXANE	110-82-7
Pennsylvania - RTK - Environmental Hazard List	ETHYL BENZENE	100-41-4
Pennsylvania - RTK - Environmental Hazard List	NAPHTHALENE	91-20-3
Pennsylvania - RTK - Environmental Hazard List	TOLUENE	108-88-3
Pennsylvania - RTK - Environmental Hazard List	XYLENE	1330-20-7
Pennsylvania - RTK - Special Hazardous Substances	BENZENE	71-43-2
TSCA - Sect. 12(b) - Export Notification	NAPHTHALENE	91-20-3
TSCA - Section 4 - Chemical Test Rules	CYCLOHEXANE	110-82-7
TSCA - Section 4 - Chemical Test Rules	NAPHTHALENE	91-20-3
U.S. - DOT - Hazardous Substances and RQs (App A)	BENZENE	71-43-2
U.S. - DOT - Hazardous Substances and RQs (App A)	CUMENE	98-82-8
U.S. - DOT - Hazardous Substances and RQs (App A)	CYCLOHEXANE	110-82-7
U.S. - DOT - Hazardous Substances and RQs (App A)	ETHYL BENZENE	100-41-4
U.S. - DOT - Hazardous Substances and RQs (App A)	N-HEXANE	110-54-3
U.S. - DOT - Hazardous Substances and RQs (App A)	NAPHTHALENE	91-20-3
U.S. - DOT - Hazardous Substances and RQs (App A)	TOLUENE	108-88-3
U.S. - DOT - Hazardous Substances and RQs (App A)	XYLENE	1330-20-7
U.S. - DOT - Marine Pollutants - (App B)	LIGHT PETROLEUM DISTILLATE	8006-61-9

Title III Classifications Sections 311,312:

- Acute: **YES**
- Chronic: **YES**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Keep out of reach of children. Precautionary labeling for pumps, portable containers, and drums is required. A "hazardous when empty" pictogram and D.O.T. flammable liquid label are also required for drums. Details available upon request. Because benzene is present in this product above 0.1%, the Osha Standard for benzene is applicable to work locations upstream of final discharge from terminals. Consult 29CFR1910.1028 for details. Prolonged and repeated excessive exposures to benzene can result in blood disorders ranging from anemia to leukemia. Sun recommends that exposures to benzene be kept below 0.5 ppm for 8-hours; 2.5 ppm for 15-min. Normal service station operations are below these values. For use as motor fuel only. Do not use for any other purpose. NOTE TO PHYSICIAN: Catecholamines and similar adrenergic drugs are generally contraindicated because of potential for increased sensitivity of the heart from hydrocarbon overexposure and subsequent ventricular fibrillation. EKG monitoring may be indicated and bronchodilators should be selected with care. Following injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss. COMPONENT TOXICITY: Following inhalation exposure, an increased tumor incidence has been observed in experimental animals. The significance of this finding to human health is presently unknown. Ethylbenzene, a component of this product, has been designated by the International Agency for Research on Cancer as "possibly carcinogenic to humans", based on increased tumor incidence in laboratory animals. Overexposure may lead to nervous system effects, including drowsiness, dizziness, nausea, headaches, paralysis, loss of consciousness and even death. Repeated overexposure has caused a hearing loss in laboratory animals. Hours of exposure to high airborne concentrations of xylene, a minor component of this product, has caused a hearing loss in laboratory animals. Hours of exposure to high airborne concentrations of toluene and