



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: SUNOCO FR

Manufacturer Information:

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

Philadelphia, Pennsylvania, 19103-7583

Product Use:

Racing fuel

Emergency Phone Numbers:

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

Information:

Product Safety Information (610) 859-1120

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No. | Amount (Vol%) |
|----------------------------|-----------|---------------|
| LIGHT PETROLEUM DISTILLATE | 8006-61-9 | 0 - 99.9 |
| TOLUENE | 108-88-3 | 35 - 35 |
| XYLENE | 1330-20-7 | 0 - 25 |
| ETHYL ALCOHOL | 64-17-5 | 10 - 10 |
| N-BUTANE | 106-97-8 | 9 - 9 |
| CYCLOHEXANE | 110-82-7 | 9 - 9 |
| N-HEXANE | 110-54-3 | 0 - 5 |
| NAPHTHALENE | 91-20-3 | 0 - 5 |
| ETHYL BENZENE | 100-41-4 | 0 - 5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 | 0 - 5 |
| BENZENE | 71-43-2 | 0.1 - 4.9 |
| TERT-BUTYL ALCOHOL | 75-65-0 | 0 - 2 |
| 2,6-DI-TERT-BUTYLPHENOL | 128-39-2 | 1.4 - 1.4 |
| 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-BUTANE | 106-97-8 | ACGIH | TWA | 1000 | 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 | 50 | 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 |
| TERT-BUTYL ALCOHOL | 75-65-0 | ACGIH | TWA | 100 | ppm |
| TERT-BUTYL ALCOHOL | 75-65-0 | OSHA | TWA | 100 | ppm |

3. HAZARDS IDENTIFICATION

- **EMERGENCY OVERVIEW**

Danger! Extremely flammable liquid and vapor. 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. After ingestion, 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**

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.

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**

Product may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. Irritating to mouth, throat, and stomach. May produce central nervous system effects, which may include 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 15 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

| | Typical | Minimum | Maximum | Text Result | Units | Method |
|--------------------------|----------------|----------------|----------------|--------------------|--------------|---------------|
| Flash Point | | | | Minus 40 est'd | F | N/A |
| Autoignition Temperature | | | | 750 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. Ground and bond containers when transferring material. 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 (e.g., acid suit) 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 | 6.16 | lb/gal | | |
| 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 | < 1 | |
| Vapor Pressure | | psia | 5 - 16 | |
| 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 | Gasohol |

| <u>Governing Body</u> | <u>Mode</u> | <u>Hazard Class</u> | <u>UN/NA No.</u> | <u>Label</u> |
|-----------------------|-------------|----------------------|------------------|--------------|
| DOT | Ground | 3 (Flammable liquid) | NA1203 | |

14. REGULATORY INFORMATION

| <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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 ALCOHOL | 64-17-5 |
| ACGIH - Occupational Exposure Limits - TWAs | ETHYL BENZENE | 100-41-4 |
| ACGIH - Occupational Exposure Limits - TWAs | N-BUTANE | 106-97-8 |
| ACGIH - Occupational Exposure Limits - TWAs | N-HEXANE | 110-54-3 |
| ACGIH - Occupational Exposure Limits - TWAs | NAPHTHALENE | 91-20-3 |
| ACGIH - Occupational Exposure Limits - TWAs | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 BENZENE | 100-41-4 |
| ACGIH - Short Term Exposure Limits | LIGHT PETROLEUM DISTILLATE | 8006-61-9 |
| 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 |
| ACGIH - Skin Absorption Designation | TOLUENE | 108-88-3 |
| 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 - SOCM Chemicals | BENZENE | 71-43-2 |
| CAA (Clean Air Act) - HON Rule - SOCM Chemicals | CUMENE | 98-82-8 |
| CAA (Clean Air Act) - HON Rule - SOCM Chemicals | CYCLOHEXANE | 110-82-7 |
| CAA (Clean Air Act) - HON Rule - SOCM 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 - 1990 Hazardous Air Pollutants | BENZENE | 71-43-2 |

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| 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 - 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 - WHMIS - Ingredient Disclosure | 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| Canada - WHMIS - Ingredient Disclosure | BENZENE | 71-43-2 |
| Canada - WHMIS - Ingredient Disclosure | CUMENE | 98-82-8 |
| 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 | LIGHT PETROLEUM DISTILLATE | 8006-61-9 |
| Canada - WHMIS - Ingredient Disclosure | N-BUTANE | 106-97-8 |
| Canada - WHMIS - Ingredient Disclosure | N-HEXANE | 110-54-3 |
| Canada - WHMIS - Ingredient Disclosure | NAPHTHALENE | 91-20-3 |
| Canada - WHMIS - Ingredient Disclosure | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 | BENZENE | 71-43-2 |
| 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 | CUMENE | 98-82-8 |
| 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 | CYCLOHEXANE | 110-82-7 |
| 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 | ETHYL BENZENE | 100-41-4 |
| 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 | N-HEXANE | 110-54-3 |
| 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 | NAPHTHALENE | 91-20-3 |
| 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 | TOLUENE | 108-88-3 |
| CERCLA/SARA - Haz Substances and their RQs | TOLUENE | 108-88-3 |
| CERCLA/SARA - Haz Substances and their RQs | XYLENE | 1330-20-7 |
| CERCLA/SARA - Haz Substances and their RQs | XYLENE | 1330-20-7 |
| 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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| CERCLA/SARA - Section 313 - Emission Reporting | TOLUENE | 108-88-3 |
| CERCLA/SARA - Section 313 - Emission Reporting | XYLENE | 1330-20-7 |
| CERCLA/SARA - Section 313 - Emission Reporting | BENZENE | 71-43-2 |
| CWA (Clean Water Act) - Hazardous Substances | | |

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|---|-------------------------------|-----------|
| 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 |
| IARC - Group 1 (carcinogenic to humans) | BENZENE | 71-43-2 |
| IARC - Group 2B (Possibly carcinogenic to humans) | ETHYL BENZENE | 100-41-4 |
| IARC - Group 2B (Possibly carcinogenic to humans) | LIGHT PETROLEUM DISTILLATE | 8006-61-9 |
| 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) | 2,6-DI-TERT- BUTYLPHENOL | 128-39-2 |
| 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 DISTILLATE | 8006-61-9 |
| Inventory - Australia (AICS) | N-BUTANE | 106-97-8 |
| Inventory - Australia (AICS) | N-HEXANE | 110-54-3 |
| Inventory - Australia (AICS) | NAPHTHALENE | 91-20-3 |
| Inventory - Australia (AICS) | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 | 2,6-DI-TERT- BUTYLPHENOL | 128-39-2 |
| 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 DISTILLATE | 8006-61-9 |
| Inventory - Canada - Domestic Substances List | N-BUTANE | 106-97-8 |
| Inventory - Canada - Domestic Substances List | N-HEXANE | 110-54-3 |
| Inventory - Canada - Domestic Substances List | NAPHTHALENE | 91-20-3 |
| Inventory - Canada - Domestic Substances List | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 | 2,6-DI-TERT- BUTYLPHENOL | 128-39-2 |
| 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 |

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| Inventory - Philippines Inventory (PICCS) | LIGHT PETROLEUM DISTILLATE | 8006-61-9 |
| Inventory - Philippines Inventory (PICCS) | N-BUTANE | 106-97-8 |
| Inventory - Philippines Inventory (PICCS) | N-HEXANE | 110-54-3 |
| Inventory - Philippines Inventory (PICCS) | NAPHTHALENE | 91-20-3 |
| Inventory - Philippines Inventory (PICCS) | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 | 2,6-DI-TERT-BUTYLPHENOL | 128-39-2 |
| 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 DISTILLATE | 8006-61-9 |
| Inventory - TSCA - Sect. 8(b) Inventory | N-BUTANE | 106-97-8 |
| 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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| Inventory - TSCA - Sect. 8(b) Inventory | TOLUENE | 108-88-3 |
| Inventory - TSCA - Sect. 8(b) Inventory | XYLENE | 1330-20-7 |
| Inventory - TSCA - Sect. 8(b) Inventory | 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 DISTILLATE | 8006-61-9 |
| Massachusetts - Right To Know List | N-BUTANE | 106-97-8 |
| Massachusetts - Right To Know List | N-HEXANE | 110-54-3 |
| Massachusetts - Right To Know List | NAPHTHALENE | 91-20-3 |
| Massachusetts - Right To Know List | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 DISTILLATE | 8006-61-9 |
| New Jersey - Department of Health RTK List | N-BUTANE | 106-97-8 |
| 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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 DISTILLATE | 8006-61-9 |
| New Jersey - Env Hazardous Substances List | N-BUTANE | 106-97-8 |
| New Jersey - Env Hazardous Substances List | N-HEXANE | 110-54-3 |

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| New Jersey - Env Hazardous Substances List | NAPHTHALENE | 91-20-3 |
| New Jersey - Env Hazardous Substances List | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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-BUTANE | 106-97-8 |
| New Jersey - Special Hazardous Substances | N-HEXANE | 110-54-3 |
| New Jersey - Special Hazardous Substances | TERT-BUTYL ALCOHOL | 75-65-0 |
| 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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| OSHA - Final PELs - Time Weighted Averages | TOLUENE | 108-88-3 |
| OSHA - Final PELs - Time Weighted Averages | XYLENE | 1330-20-7 |
| OSHA - Regulated Carcinogens | BENZENE | 71-43-2 |
| OSHA - Select 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-BUTANE | 106-97-8 |
| 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 | TERT-BUTYL ALCOHOL | 75-65-0 |
| Pennsylvania - RTK (Right to Know) List | TOLUENE | 108-88-3 |
| Pennsylvania - RTK (Right to Know) List | XYLENE | 1330-20-7 |
| Pennsylvania - RTK - Special Hazardous Substances | BENZENE | 71-43-2 |
| TSCA - Sect. 12(b) - Export Notification | CYCLOHEXANE | 110-82-7 |
| TSCA - Sect. 12(b) - Export Notification | N-HEXANE | 110-54-3 |
| 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 |
| TSCA - Section 8(a) - PAIR Reporting List | NAPHTHALENE | 91-20-3 |
| TSCA - Section 8(a) - PAIR Reporting List | TERT-BUTYL ALCOHOL | 75-65-0 |

Title III Classifications Sections 311,312:

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

15. OTHER INFORMATION

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 1.0 ppm for 8-hours; 5.0 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: Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Keep out of reach of children. Cumene may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and cause damage. May cause respiratory irritation, fluid in the lungs and lung damage. May be irritating to the skin and eyes. May be harmful if absorbed through the skin. May cause nervous system effects, including drowsiness, dizziness, coma and even death. Overexposure has caused blood changes and kidney, spleen and liver damage in laboratory animals. 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.