

MATERIAL SAFETY DATA SHEET

EQUILON MSDS: 01463ET 01/04/99

LS DYED KEROSENE K-1

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

EQUIVA SERVICES: 877-276-7283

CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE

877-276-7285

NAME AND ADDRESS:

EQUILON ENTERPRISES LLC

PRODUCT STEWARDSHIP

P.O. BOX 674414

HOUSTON, TX 77267-4414

LEGEND:

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE

N.T- NOT TESTED

< - LESS THAN

> - GREATER THAN

1. NAME

MATERIAL IDENTITY

Product Code and Name:

01463 LS DYED KEROSENE K-1

Chemical Name and/or Family or Description:

Jet Fuel

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:

| | | | | |
|------|------|-----|-------|------|
| OSHA | IARC | NTP | OTHER | NONE |
| | | | | X |

Composition: (Sequence Number and Chemical Name)

| Seq. | Chemical Name | CAS Number | Range in % |
|------|---------------|------------|------------|
|------|---------------|------------|------------|

| | | | |
|------|----------|-----------|--------|
| 01 * | Kerosene | 8008-20-6 | 100.00 |
|------|----------|-----------|--------|

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq. Limit

| | | |
|----|-----|----------------|
| 01 | 100 | ppm TWA-TEXACO |
|----|-----|----------------|

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:

Pink liquid

Odor:

Petroleum odor

WARNING STATEMENT

CAUTION !

MAY CAUSE DIZZINESS AND DROWSINESS

MAY CAUSE EYE IRRITATION

ASPIRATION HAZARD IF SWALLOWED -

CAN ENTER LUNGS AND CAUSE DAMAGE

COMBUSTIBLE LIQUID AND VAPOR

USE ONLY AS A FUEL

HMIS

NFPA

Health: 1 Reactivity: 0

Health: 1 Reactivity: 0

Flammability: 2 Special : -

Flammability: 2 Special : -

POTENTIAL HEALTH EFFECTS

EYE SKIN INHALATION INGESTION

Primary Route of Exposure: X X X

- - - -

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Prolonged, widespread, or repeated skin contact may result in the absorption of potentially harmful amounts of material.

Inhalation:

Vapors or mist may cause irritation of the nose and throat.

Inhalation may cause dizziness, drowsiness, euphoria, loss of coordination, disorientation, headache, nausea, and vomiting. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result. Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:

Unknown.

Chronic:

Repeated skin contact may cause a persistent irritation or dermatitis.

Medical Conditions Aggravated by Exposure:

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

None

4. FIRST AID MEASURES

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

Ingestion:

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Other Instructions:

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

Contact a Poison Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees F):

380

Flash Point (degrees F):

125 (CC)

Flammable Limits (%):

Lower: .5

Upper: 4.4

Recommended Fire Extinguishing Agents And Special Procedures:

Use water spray, dry chemical, foam or carbon dioxide to extinguish flames.

Use water spray to cool fire-exposed containers.

Unusual or Explosive Hazards:

None

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

If more than 476,190 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Eye wash and safety shower should be available nearby when this product is handled or used.

Storage:

Store away from heat and open flame. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required. The use of Nitrile protective materials is recommended.

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Local exhaust ventilation recommended if generating vapor, dust, or mist. If exhaust ventilation is not available or inadequate, use MSHA or NIOSH approved respirator as appropriate.

Exposure Limit for Total Product:

None established for product.

For hydrocarbons: TEXACO TWA 100 ppm.

 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
 Pink liquid
 Odor:
 Petroleum odor
 Boiling Point (degrees F):
 515
 Melting/Freezing point (degrees F):
 Not applicable.
 Specific Gravity (water=1):
 .816
 pH of undiluted product:
 Not applicable.
 Vapor Pressure:
 < 7 mmHg
 Viscosity:
 1.2 cSt at 37.7 C
 VOC Content:
 Not determined.
 Vapor Density (air=1):
 Not determined.
 Solubility in Water (%):
 Not determined.
 Other: None

 10. STABILITY AND REACTIVITY

This Material Reacts Violently With:
 (If Others is checked below, see comments for details)

| | | | | | |
|-----|-------|------|------------------|--------|---------------|
| Air | Water | Heat | Strong Oxidizers | Others | None of These |
| | | | X | | |
| — | — | — | — | — | — |

Comments:

None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

Hazardous Polymerizations: DO NOT OCCUR

 11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Similar product > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Similar product > 2.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Similar product > .50 - 3.00 /8.0 (rabbit) slightly irritating

Eyes:

(Draize) Similar product > 15.00 - 25.00 /110 (rabbit) slightly irritating

Sensitization:

Not determined.

Other:

Middle distillates have caused skin irritation and skin cancer in laboratory animals when repeatedly applied and left in place between applications. Studies to further evaluate the carcinogenic potential of middle distillates are currently underway. Kidney damage has also been observed in laboratory animals exposed to middle distillates.

 12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product (as presently constituted) has the RCRA classification of

benzene toxicity and ignitability. If discarded in its present form, it would have the hazardous waste numbers D018 and D001 respectively. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to benzene toxicity and ignitability.

Remarks

This product is potentially biodegradable.

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:

Fuel, Aviation, Turbine Engine

Hazard Class:

Combustible liquid (See 49CFR 172.101(d)(4))

Identification Number: UN1863

Packing Group: III

Label Required:

None

Marine pollutant:

Not applicable

IMDG:

Proper Shipping Name:

Not evaluated

ICAO:

Proper Shipping Name:

Not evaluated

TDG:

Proper Shipping Name:

Not evaluated

14. REGULATORY INFORMATION

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances

| Seq. Chemical Name | CAS Number | Range in % |
|--------------------|------------|------------|
| None | | |

None

Section 302/304 Extremely Hazardous Substances (CONT)

| Seq. TPQ | RQ |
|----------|----|
| None | |

None

Section 311 Hazardous Categorization:

| Acute | Chronic | Fire | Pressure | Reactive | N/A |
|-------|---------|------|----------|----------|-----|
| X | | X | | | |

Section 313 Toxic Chemical

| Chemical Name | CAS Number | Concentration |
|---------------|------------|---------------|
| None | | |

None

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

| Seq. Chemical Name | CAS Number | Range in % |
|--------------------|------------|------------|
| 01+ Cumene | 98-82-8 | 0.0024 |
| 02+ Benzene | 71-43-2 | 0.0021 |

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq. RQ

| | |
|-----|------|
| 01+ | 5000 |
| 02+ | 10 |

TSCA Inventory Status:

This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

None.

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity.

| Chemical Name | CAS Number |
|---------------|------------|
| Benzene | 71-43-2 |

International Regulations:

WHMIS Classification:

Not determined

Canada Inventory Status:

This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

EINECS Inventory Status:

This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

Australia Inventory Status:

This product, or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

Japan Inventory Status:

This product, or its components, are listed on or are exempt from the Japanese Ministry of International Trade and Industry (MITI) inventory.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not determined.

Remarks:

None

16. OTHER INFORMATION

This product is not intended for use in space heaters. Do not use in agricultural sprays.

THIS PRODUCT IS INTENDED FOR USE AS A FUEL ONLY.

Texaco recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF EQUIVA SERVICES, LLC.

Date: 1999-01-04 New X Revised, Supersedes: 1998-10-22

Inquiries regarding MSDS should be directed to:

Equiva Services LLC
 Manager Product Stewardship
 P.O. Box 674414
 Houston, TX 77267-4414

17. PRODUCT LABEL

Label Date: 1998-07-22

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.
 01463 LS DYED KEROSENE K-1

WARNING STATEMENT

CAUTION ! MAY CAUSE DIZZINESS AND DROWSINESS
 MAY CAUSE EYE IRRITATION
 ASPIRATION HAZARD IF SWALLOWED -
 CAN ENTER LUNGS AND CAUSE DAMAGE
 COMBUSTIBLE LIQUID AND VAPOR
 USE ONLY AS A FUEL

PRECAUTIONARY MEASURES

- Use only with adequate ventilation.
- Keep away from heat and flame.
- Avoid breathing vapor, mist, or gas.
- Avoid contact with eyes.
- Keep container closed.
- Never siphon by mouth.
- Wash thoroughly after handling.

FIRST AID

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin Contact:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

Ingestion:

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Note to Physician:

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers. If more than 476,190 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

| Chemical Name | CAS Number | Range in % |
|---------------|------------|------------|
| * Kerosene | 8008-20-6 | 100.00 |

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

| Pennsylvania Special Hazardous Substance(s) | CAS Number | Range in % |
|---|------------|------------|
|---|------------|------------|

None

| HMIS | | NFPA | |
|-----------------|---------------|-----------------|---------------|
| Health: 1 | Reactivity: 0 | Health: 1 | Reactivity: 0 |
| Flammability: 2 | Special : - | Flammability: 2 | Special : - |

Transportation

DOT:

Proper Shipping Name:

Fuel, Aviation, Turbine Engine

Hazard Class:

Combustible liquid (See 49CFR 172.101(d)(4))

Identification Number: UN1863

Packing Group: III

Label Required:

None

Marine pollutant:

Not applicable

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Name and Address:

Equilon Enterprises LLC

P.O. Box 674414

Houston ,TX 77267-4414

TRANSPORTATION EMERGENCY: (877)276-7283

CHEMTREC: (800)424-9300

HEALTH EMERGENCY: (877)276-7283

}