

MATERIAL SAFETY DATA SHEET



(English - FAMM)

FUEL OIL #6

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product code and name:

GEN07 FUEL OIL #6

Chemical name and/or family or description:

Fuel Oil

Manufacturer's name and address:

FUEL AND MARINE MARKETING LLC
A Texaco and Chevron Joint Venture Company
1111 Bagby Street
Houston, TX 77002

Phone: (713) 752-3806

Fax: (713) 752-3981

Transportation emergency:

USA: 800/231-0623 or 510/231-0623

Europe: +44/(0)18 65 407 333 or +1 510 231 0623

Asia Pacific: +65 6883 1111 or +1 510 231 0623

CHEMTREC (USA): (800) 424-9300

Health emergency-Company: (504) 680-1900

MSDS Assistance (USA):(845)838-7204

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or component(s)

Carcinogenic According to:

OTHER

This Material Safety Data Sheet may be used for the following products for Hazard Communications purposes only, not intended to imply identical performance/technical specifications: 00753 Fuel Oil 00755 Fuel Oil 00821 Fuel Oil LSLA 00823 Fuel Oil PA 00840 Bunker Fuel Oil 00841 Fuel Oil C HV 00847 Fuel Oil C HV 00864 Fuel Oil VLS 00867 Fuel Oil LSHP 00868 Fuel Oil C 00878 Fuel Oil CHV 00880 Fuel Oil PSP 00885 Fuel Oil Heavy BKP 00887 Fuel Oil C 00891 Fuel Oil #6 00892 Fuel Oil C-IG

<u>Name</u>	<u>Cas nr</u>	<u>Range in %</u>
Blendstock of distillate and residual petroleum fractions to prescribed viscosity ranges.	-	100

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

3. HAZARD IDENTIFICATION

Fuel and Marine Marketing LLC
A Texaco and Chevron Joint Venture Co.
1111 Bagby Street
Houston, TX 77002
USA

phone : (713)752-3806
fax : (713)752-3981
Email :

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FUEL OIL #6

EMERGENCY OVERVIEW

WARNING STATEMENT

WARNING !

FLAMMABLE HEADSPACE VAPORS MAY BE PRESENT

CONTAINS OR MAY RELEASE HYDROGEN SULFIDE GAS (H2S) H2S GAS IS HARMFUL OR FATAL IF INHALED H2S GAS IS IRRITATING TO EYES AND RESPIRATORY TRACT H2S GAS MAY ACCUMULATE IN CONFINED SPACES

MAY CAUSE EYE IRRITATION

COMBUSTIBLE LIQUID AND VAPOR

USE ONLY AS A FUEL

CONTAINS CATALYTICALLY CRACKED CLARIFIED OIL WHICH MAY CAUSE CANCER AND BIRTH DEFECTS BASED ON ANIMAL DATA

CONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES:

-Keep away from heat, sparks or flame.

-Use only with adequate ventilation.

-H2S gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-Use supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.

-Avoid breathing vapor, mist, or gas.

-Avoid contact with eyes, skin, and clothing.

-Rescue procedures should be attempted ONLY after notifying others of emergency and ONLY if appropriate personal equipment is available.

-Keep container closed.

-Wash thoroughly after handling.

HMIS

Health: 2

Flammability: 2

Reactivity: 0

Special: -

NFPA

Health: 1

Flammability: 2

Reactivity: 0

Special: -

Primary Route of Exposure:

EYES

SKIN

INHALATION

EFFECTS OF OVEREXPOSURE

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Acute:

Eyes:

May cause irritation, experienced as discomfort or pain, and seen as excess redness and swelling of the eye, and possible injury to the cornea.

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, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Contains or may release hydrogen sulfide (H₂S) gas. H₂S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea, and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur. 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.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Over Exposure:

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

Other Remarks:

Heating or calcining (in temperatures between 350 and 1800 F) or other processing may release particulate and/or gaseous polynuclear aromatic hydrocarbons (polycyclic aromatic hydrocarbons). These are also known as coal tar pitch volatiles. IARC has concluded that there is sufficient evidence for carcinogenicity for coal tar pitches in humans and laboratory animals. The ACGIH TLV/TWA is 0.2 mg/m³.

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.

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Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, clear person's airway and give artificial respiration. If breathing is difficult, qualified medical personnel may administer oxygen. Get medical attention immediately.

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.

Note to Physician:

Inhalation exposure may result in respiratory tract injury, the delayed onset of pulmonary edema, and may predispose patient to secondary respiratory infection. Persons exposed to high concentrations should be hospitalized for observation. Contact a Poison Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees C):

Not determined.

Flash Point (degrees C):

65 (PMCC)

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:

May polymerize violently upon exposure to heat from fire.

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

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.

6. ACCIDENTAL RELEASE MEASURES

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.

7. HANDLING AND STORAGE

Precautions to be Taken in

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Handling:

This product contains residual fuels which must be considered as a potential flammability risk. Light hydrocarbons may be released in the headspace vapors of bunker tanks, cargo tanks, and land based terminal storage tanks. The headspace vapors may be flammable at temperatures below the flashpoint of the liquid.

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:

Avoid eye contact. Chemical type goggles should be worn. Do not wear contact lenses.

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.

Respiratory Protection:

When Hydrogen Sulfide (H₂S) concentrations are unknown or are equal to or greater than 10 ppm, (as in such activities as: loading, unloading, guaging, cleaning large spills or upon entry into tanks, vessels, or other confined spaces, and during rescue of individuals suspected to be overexposed to H₂S), use supplied-air (airline or self-contained breathing apparatus) respiratory protection (NIOSH/MSHA Approved). The respirators must be equipped with pressure-demand regulators and operated in the pressure-demand mode ONLY. If airline units are used, a 5-minute egress bottle MUST also be carried. GAS MASKS OR OTHER AIR-PURIFYING RESPIRATORS MUST NEVER BE USED FOR H₂S DUE TO POOR WARNING PROPERTIES OF THE GAS.

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 Control for Total Product:

None established for product. Recommend coal tar pitch volatiles (benzene soluble fraction): Coal tar pitch volatiles: OSHA PEL-TWA 0.2 mg/m³. Hydrogen sulfide: OSHA PEL-TWA 10 ppm, STEL 15ppm. ACGIH TLV-TWA 10 ppm, STEL 15 ppm.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black liquid
Odor:	Oil-type odor
Boiling Point (degrees C):	Not determined.
Melting/Freezing point (degrees C):	Not applicable.
Specific Gravity (water=1):	.946
pH of undiluted product:	Not determined.
Vapor Pressure:	Not determined.
Viscosity (degrees C):	68 cSt (50.00)
VOC Content:	Not determined.
Vapor Density (air=1):	Not determined.

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Solubility in Water (%): Not determined.
Other: None

10. STABILITY AND REACTIVITY

This material reacts violently with:

Strong Oxidizers

Comments:

None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones. May evolve hydrogen sulfide, sulfur oxides and other sulfur containing compounds.

Hazardous Polymerizations:

No

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Believed to be > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 2.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be > 0.5-3.0 /8.0 (rabbit) slightly irritating

Eyes:

(Draize) Believed to be > 25.0-50.0 /110 (rabbit) moderately irritating

Sensitization:

Not determined.

Other:

Repeated dermal application of Catalytically Cracked Clarified Oil to experimental animals has been reported to elicit skin cancer, mortality and toxic effects towards the liver, thymus and bone marrow, the latter effect was accompanied by anemia. The kidney and adrenal glands have also been reported as target organs of this material. Dermal application of Catalytically Cracked Clarified Oil to preganant experimental animals has also been reported to elicit toxic effects towards the developing offspring. Catalytically Cracked Clarified Oil has been reported as a genetic toxicant in experimental studies.

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. A similar product, Texaco Fuel Oil C, is mutagenic to bacteria in the Modified Ames Test.

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12. DISPOSAL CONSIDERATIONS

US/RCRA Waste Disposal Methods:

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. 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 render the resulting materials hazardous.

Remarks:

None

13. TRANSPORT INFORMATION

<u>DOT:</u>	Fuel Oil Combustible liquid (See 49CFR 172.101(d)(4))
Identification Number:	NA1993
Packing Group:	III
<u>Label Required:</u>	None
<u>IMDG:</u>	Not evaluated
<u>ICAO:</u>	Not evaluated
<u>TDG:</u>	Not evaluated

14. REGULATORY INFORMATION

Regulatory Information:

SARA 311 Hazard Categorization:

Fire

Acute

Chronic

WHMIS:

Not determined

Regulatory Comments:

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

The Japanese Ministry of International Trade and Industry (MITI) inventory status of this product has not been determined.

The European Inventory of Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS) status of this product has not been determined.

The Canadian Domestic Substances List (DSL) status of this product has not been determined.

The Australian Inventory of Chemical Substances (AICS) status of this product has not been determined.

15. ENVIROMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

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Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not determined.

Remarks:

None

16. OTHER INFORMATION

Other Information:

THIS PRODUCT IS INTENDED FOR USE AS A FUEL ONLY.

Hazardous concentrations of hydrogen sulfide (H2S) gas can accumulate in storage and rundown tanks, marine vessel compartments, sump pits or other confined spaces. When opening valves, hatches and dome covers, stand upwind, keep face as far from the opening as possible and avoid breathing any gases or vapors. When exposure concentrations are unknown and respiratory protection is not used, personal H2S warning devices should be worn. These devices should not be relied on to warn of life threatening concentrations. H2S fatigues the sense of smell rapidly. The rotten egg odor of H2S disappears quickly, even though high concentrations are still present. The ACGIH TLV/TWA for H2S is 10 ppm, the ACGIH STEL is 15 ppm.

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 ash from combustion products will contain nickel, vanadium, and other potentially toxic heavy metal oxides. Take appropriate precautions to avoid contact with and inhalation of ash from combustion and exhaust spaces.

17. PRODUCT LABEL

MATERIAL IDENTITY

Product code and name:

GEN07 FUEL OIL #6

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<u>Name</u>	<u>Cas nr</u>	<u>Range in %</u>
Blendstock of distillate and residual petroleum fractions to prescribed viscosity ranges.	-	100

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

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MAY CAUSE EYE IRRITATION

COMBUSTIBLE LIQUID AND VAPOR

USE ONLY AS A FUEL

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CONTAINS POLYNUCLEAR AROMATIC HYDROCARBONS WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES:

-Keep away from heat, sparks or flame.

-Use only with adequate ventilation.

-H₂S gas deadens sense of smell. Do not depend on odor to detect presence of gas.

-Use supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.

-Avoid breathing vapor, mist, or gas.

-Avoid contact with eyes, skin, and clothing.

-Rescue procedures should be attempted ONLY after notifying others of emergency and ONLY if appropriate personal equipment is available.

-Keep container closed.

-Wash thoroughly after handling.

HMIS

Health:

2

Flammability:

2

Reactivity:

0

Special:

-

NFPA

Health:

1

Flammability:

2

Reactivity

0

Special:

-

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FUEL OIL #6

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 more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, clear person's airway and give artificial respiration. If breathing is difficult, qualified medical personnel may administer oxygen. Get medical attention immediately.

Note to Physician:

Inhalation exposure may result in respiratory tract injury, the delayed onset of pulmonary edema, and may predispose patient to secondary respiratory infection. Persons exposed to high concentrations should be hospitalized for observation. 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.

DOT:

Fuel Oil

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

Identification Number:

NA1993

Packing Group:

III

Label Required:

None

Manufacturer's name and address:

FUEL AND MARINE MARKETING LLC

A Texaco and Chevron Joint Venture Company

1111 Bagby Street

Houston, TX 77002

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FUEL OIL #6

Health emergency-Company:(504) 680-1900

Product Code : GEN07

Date Issued : 31/05/2002

Supersedes : 09/11/2001

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.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF THE COMPANY'S PRODUCT STEWARDSHIP PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL THE COMPANY'S PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL THE COMPANY'S PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN. TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. THE COMPANY DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.