

MSDS - Material Safety Data Sheet

Product Name: #5 FUEL OIL

MSDS No.: SER10

I. Basic Information:

Manufacturer: Silver Eagle Refining, Woods Cross Inc.

Address: P.O. Box 870298, 2355 South 1100 West

City, ST Zip: Woods Cross, UT 84087

Emergency Contact: Kerry Carroll

Emergency Telephone Number: 801-556-6494

Contact: Kerry B. Carroll/Blaine Zwahlen

Information Telephone Number: 801-298-3211

Last Update: 08/31/2004

Expiration Date:

Chemical State: Liquid Gas Solid

Chemical Type: Pure Mixture



0	Health
2	Flammability
0	Reactivity
Pers. Protection	

II. Ingredients:

Trade Secret

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z	313					
68476302	Fuel oil #2										
68553004	Fuel oil #6										
7783064	Hydrogen sulfide		X				X	10 ppm	10 ppm		

III. Hazardous Identification:

Hazard Category:

Acute Chronic Fire Pressure Reactive

Hazardous Identification Information:

NO INFORMATION AVAILABLE

IV. First Aid Measures:

Route(s) of Entry:

EYES;YES SKIN;YES

Health Hazards (Acute and Chronic):

EYES;Contact may cause mild eye irritation including stinging, watering, and redness.
 SKIN;Skin irritant. Contact may cause redness, itching, burning, and skin damage. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin, leading to dermatitis (inflammation). Not acutely toxic by skin absorption, but prolonged or repeated skin contact may be harmful (see Section 11).
 INHALATION;No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.
 May contain or liberate hydrogen sulfide - see Other Comments section below.
 INGESTION;Low degree of toxicity by ingestion.

Signs and Symptoms:

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Effects of overexposure may include irritation of the nose and throat, irritation of the digestive tract, nausea, diarrhea and transient excitation followed by signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue).

Medical Conditions Generally Aggravated by Exposure:

FIRST AID MEASURES:Skin: irritating; remove contaminated clothing, flush with water; Eyes: flush with water; Ingestion: if swallowed, do not induce vomiting, drink water and milk, contact physician.

EFFECTS OF EXPOSURE:

Inhalation of high concentrations may cause headache, nausea, confusion, drowsiness. When ingested, it may cause nausea, vomiting, and in severe cases, drowsiness progressing to coma; gastrointestinal irritation.

Emergency and First Aid Procedures:

EMERGENCY TREATMENT:

Aspiration: If severe, enforced bed rest; administer oxygen; call doctor. Ingestion: do not induce vomiting; call doctor. Eyes and Skin: wash with water; use soap and water on skin.

Other Health Warnings:

V. Fire Fighting Measures:

Flash Point: >130 F

Lower Explosive Limit: Not established

Upper Explosive Limit: Not established

F.P. Method: PMCC

Fire Extinguishing Media: FIRE:

EXTINGUISHING MEDIA: Dry chemical foam or carbon dioxide

Special Fire Fighting Procedures:

Water may be ineffective, but may be used to cool nearby equipment or tanks

Unusual Fire and Explosion:

UNUSUAL HAZARDS: Combustion products such as carbon monoxide and carbon dioxide.

VI. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

SPILLS:

STEPS TO BE TAKEN: Stop discharge; isolate mechanically (sand dikes, etc.) if possible; call fire department and local environmental health office. If spill results in unknown concentration or conditions immediately dangerous to life, use NIOSH/MSHA approved self-contained breathing apparatus.

VII. Handling and Storage:

Precautions to be Taken:

PRECAUTIONS:

HANDLING AND STORAGE: Store large quantities in API above ground storage tanks. Bond and ground during liquid transfer.

Other Precautions:

VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

VENTILATION:

GENERAL MECHANICAL: Presently there is no Federal standard for #5 Fuel in workroom air, nor has a standard been proposed. Store in a cool well-ventilated area. Protect from sources of ignition. Provide means of controlling leaks and spills.

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Personal Protective Equipment:

PROTECTIVE EQUIPMENT TYPES:

EYES: Goggles, face shield, or safety glasses with side shield.

RESPIRATORY: Use NIOSH/MSHA approved air purifying respirator for concentrations exceeding the recommended exposure limit; use oxygen supply to enter storage tank.

GLOVES: Impervious nitrile rubber.

IX. Physical and Chemical Properties:

Boiling Point: >350o F

Melting Point:

Evaporation Rate (Butyl Acetate = 1): >1

Vapor Pressure (mm Hg.): Not Pertinent

Specific Gravity (H2O = 1):

Vapor Density (AIR = 1): Not Pertin

Solubility In Water: Insoluble

Appearance and Odor: APPEARANCE: Dark brown to black liquid.

Other Information: APPEARANCE: Dark brown to black liquid.

ODOR: Characteristic; from kerosene to tar.

X. Stability and Reactivity:

Stability:

Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility (Materials to Avoid):

CONDITIONS TO AVOID; Avoid all possible sources of ignition.

MATERIALS TO AVOID; Avoid contact with strong oxidizing agents.

Decomposition/By Products:

Combustion can yield carbon, nitrogen and sulfur oxides.

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information:

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Fuel Oil No. 6 (CAS# 68553-00-4)

Carcinogenicity:

Application of petroleum hydrocarbons of similar composition and boiling range to mouse skin resulted in an increased incidence of skin tumors. Residual fuel oils have been identified as a carcinogen by IARC.

Target Organ(s): Dermal application of fuel oil no. 6 to rabbits, 5 days a week for 2 weeks, resulted in limited evidence of liver damage.

Fuel Oil No. 2 (CAS# 68476-30-2)

Carcinogenicity:

Application of petroleum hydrocarbons of similar composition and boiling range to mouse skin resulted in an increased incidence of skin tumors. Residual fuel oils have been identified as a carcinogen by IARC.

Application of fuel oil No. 2 to mouse skin, three times a week (duration unspecified), resulted in an increased incidence of skin tumors. Fuel oil No. 2 has not been identified as a carcinogen by NTP, IARC, or OSHA.

Target Organ(s): Limited evidence of renal impairment has been noted from a few case reports involving excessive exposure to diesel fuel No. 2.

Acute Data:

Diesel Fuel No. 2

Dermal LD50>5ml/kg (Rabbit)

LC50=No data available

Oral LD50=9 ml/kg (Rat)

Fuel Oil No. 6

Dermal LD50>5 ml/kg (Rabbit)

LC50=No data available

Oral LD50> 25 ml/kg (Rat)

XII. Ecological Information:

Not evaluated at this time

XIII. Disposal Considerations:

WASTE DISPOSAL METHOD: Insure conformity with all applicable disposal regulations.

XIV. Transport Information:

DOT Shipping Description: Fuel oil (No. 5), 3 or Combustible liquid*, NA1993, III

Non-Bulk Package Marking: Fuel oil (No. 5) NA1993 or None*

Non-Bulk Package Label: Flammable or None*

Bulk Package Placard/Marking: Flammable/1993

Hazardous Substance/RQ; None

Packaging References; 49 CFR 173.150, 173.203, 173.242

Emergency Response Guide: 128

*This product may be reclassified as a combustible liquid when shipped domestically or by rail or highway.

If reclassified as a combustible liquid, this product is not regulated by DOT when shipped in non-bulk packages.

XV. Regulatory Information:

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EPA SARA 311/312 (Title III Hazard Categories):

Acute Health: Yes

Chronic Health: Yes

Fire Hazard: Yes

Pressure Hazard: No

Reactive Hazard: No

SARA 313 and 40 CFR 372:

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40

CFR 372:

Component CAS Number Weight %

-- None Known --

California Proposition 65:

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Component	Effect
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Residual Fuel Oils	Skin Cancer
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Carcinogen Identification:

Residual fuel oils have been identified as carcinogens by IARC.

EPA (CERCLA) Reportable Quantity: NONE

Canada - Domestic Substances List: LISTED

WHMIS Class:

B2-Flammable Liquid

D2B-Materials causing other toxic effects - Toxic Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

XVI. Other Information: