

MATERIAL SAFETY DATA SHEETThe Coastal Corporation

Coastal Oil New York, Inc.  
 Coastal Oil New England, Inc.  
 Coastal Fuels Marketing, Inc.  
 Coastal Mobile Refining Company  
 Coastal Derby Refining Company  
 Coastal Eagle Point Oil Company  
 Coastal Mart, Inc.  
 Coastal Refining & Marketing, Inc.

Coastal States Crude Gathering Co.  
 Coastal States Trading, Inc.  
 Coastal Unilube, Inc.  
 Coscol Marine Corporation  
 Coscol Petroleum Corporation  
 Pacific Refining Company  
 Western Fuel Oil Company  
 Coastal Fuel Terminal, Inc.

Address: 9 Greenway Plaza  
 Houston, TX 77046

Info Phone: (713) 877-1400  
 Emergency Phone: (713) 877-1400

PRODUCT IDENTIFICATION

Trade Name: **Fuel Oil No. 4** Date Revised: 02-07-90

Synonyms: Light Residual Fuel, Petroleum Distillate  
 Chemical Name and/or Family Description: A combination of paraffinic, olefinic, and aromatic hydrocarbons produced by distillation of crude oil.  
 Hazard Class: Combustible liquid; NA 1993.

COMPOSITION

Product	CAS Number	%, Wt	Occupational Exposure Limits*			Units
			OSHA PEL	ACGIH TLV	Other	
Fuel Oil No. 4	68476-31-3	100	5	5	10 STEL	mg/m <sup>3</sup> **

\* = 8-Hr. TWA unless otherwise specified.  
 \*\* = As oil mist.  
 STEL = Short Term Exposure Limit; 15 minutes.

PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point 760 mmHg: 400-1000°F  
 Vapor Pressure mmHg @ 20C: N.A.  
 Solubility in H<sub>2</sub>O %: Insoluble  
 Specific Gravity 60/60F: 0.90-1.0  
 Volatile by Volume @20C: N.A.  
 Viscosity (method,temp): 90-120 @100C SUS  
 Appearance: Black liquid

Melting Point: N.A.  
 Vapor Density (Air=1): N.A.  
 pH: N.A.  
 Evaporation Rate  
 (Butyl Acetate=1): <0.01  
 Odor: Mild petroleum odor

N.A. = Not Available

### FIRE AND EXPLOSION DATA

Flash Point: >140°F (PM)  
 Flammable Limits in Air % by Vol. Lower: 1.0 Upper: 5.0  
 Autoignition Temperature: 765°F  
 Extinguishing Media: Water spray, dry chemical, foam of carbon dioxide.

Special Fire Fighting Procedure: Use a water spray to cool fire-exposed containers. Use a smothering technique for extinguishing fire of this combustible liquid. Do not use a forced water stream directly on oil fires as this will scatter the fire. Firefighters should wear self-contained breathing apparatus and full protective clothing.

Unusual Fire or Explosion Hazard: Flowing oil can be ignited by self-generated static electricity; containers should be grounded and bonded. Check for combustible vapors prior to and during welding and torch cutting on tanks and vessels.

### REACTIVITY DATA

Stability: Stable  
 Hazardous Polymerization: Will not occur.

Conditions to Avoid/Incompatibility: Strong oxidizing agents, heat, spark, flame and build-up of static electricity.

Hazardous Decomposition Products: CO, CO<sub>2</sub>, SO<sub>2</sub>, reactive hydrocarbons.

### HEALTH HAZARD DATA

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No  
 Occupational Exposure Limits: See COMPOSITION section.  
 Effects of Overexposure

#### Acute:

Eyes: Slight to moderate eye irritation.

Skin: Moderately irritating; causing redness, drying of skin.

Inhalation: Irritating to mucous membranes and respiratory tract. Over-exposure may lead to symptoms of headache, drowsiness, fatigue, nausea, vomiting and loss of coordination.

Ingestion: Stomach irritation, gastritis. Possible effects are headache, nausea, convulsions, cyanosis, congestion and capillary hemorrhaging of the lung and internal organs. Aspiration hazard if vomiting occurs.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Additional Medical and Toxicological Information: May aggravate pre-existing dermatitis. Middle distillates have caused skin cancer and kidney damage in laboratory animals.

**EMERGENCY FIRST AID PROCEDURES**

- Eye Contact: Flush thoroughly with water for at least 15 minutes. Get medical attention.
- Skin Contact: Cool the exposed area immediately. Remove contaminated clothing. Immediately wash affected areas with soap and water. Seek medical attention.
- Inhalation: Remove to fresh air. Apply artificial respiration if not breathing. Get medical attention.
- Ingestion: Do not induce vomiting. If spontaneous vomiting occurs, hold the victim's head lower than hips to prevent aspiration.

**SPECIAL PROTECTION INFORMATION**

- Eye Protection: Remove contact lenses and wear chemical safety glasses or goggles where contact with liquid or mist may occur.
- Skin Protection: Wear impervious gloves when contact with skin may occur. Wear appropriate protective clothing to avoid skin contact.
- Inhalation: Use approved respiratory protective equipment in situations where airborne concentrations may exceed occupational exposure levels.
- Ventilation: Provide adequate ventilation: (1) to meet occupational exposure limits, (2) to prevent the formation of explosive atmospheres and (3) to prevent oxygen deficient atmospheres, especially in confined spaces.

**SPILL OR LEAK AND DISPOSAL PROCEDURES**

- Spill Procedures: Remove sources of heat or ignition including internal combustion engines and power tools. Clean-up spill, but do not flush to sewer or surface water. Ventilate area and prevent skin contact.
- Waste Disposal: Dispose through a licensed waste disposal company. Follow federal, state and local regulations.

**SPECIAL PRECAUTIONS AND COMMENTS**

- Storage Requirements: Store in tightly closed containers in a dry cool place, away from sources of heat or ignition. Ground and bond all transfer and storage equipment to prevent static sparks and equip with self closing valves, pressure vacuum bungs and flame arrestors. Empty containers may contain residue (liquid/vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death.

EPA SARA TITLE III INFORMATION

## Section 311/312 Hazard Categorization

<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactive</u>
X	X	X		

## SARA Hazardous Substances

<u>Ingredient</u>	<u>CAS No.</u>	<u>% wt</u>	<u>Sec 313</u>	<u>Sec 302</u>	<u>RQ, lb</u>	<u>TPQ, lb</u>
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None Identified

Key:    Sec 313 = Toxic Chemicals, Section 313  
         Sec 302 = Extremely Hazardous Substances (EHS), Section 302  
         RQ = Reportable Quantity of EHS  
         TPQ = Threshold Planning Quantity of EHS

CALIFORNIA PROPOSITION 65 WARNING

Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm may be found in crude oil and petroleum products. Although it is possible to sufficiently refine a crude oil or its end products to remove the potential for cancer, we are advising that one or more of the listed chemicals may be present in some detectable quantities. Read and follow directions and use care when handling crude oil and petroleum products.

Industrial Hygiene Review: Delno D. Malzahn, CIH  
Date Prepared: 09/10/86

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