



# Material Safety Data Sheet

MSDS ID NO.: 0242MAR019  
Revision date: 12/07/2010

## 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon No. 4 Fuel Oil  
**Synonym:** No. 4 Fuel Oil  
**Chemical Family:** Petroleum Hydrocarbon  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LP  
539 South Main Street  
Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Heavy or residual fuel is a complex mixture of high molecular weight hydrocarbons produced from high temperature treatment of heavy petroleum fractions.

### Product information:

| Name                    | CAS Number | Weight % | ACGIH Exposure Limits: | OSHA - Vacated PELs - Time Weighted Ave | Other: |
|-------------------------|------------|----------|------------------------|---|--------|
| Marathon No. 4 Fuel Oil | Mixture    | 100      |                        |   |        |

### Component Information:

| Name                            | CAS Number | Weight % | ACGIH Exposure Limits:  | OSHA - Vacated PELs - Time Weighted Ave  | Other:  |
|---------------------------------|------------|----------|---|--|---|
| Catalytic Cracked Clarified Oil | 64741-62-4 | 0-60     |   |  |   |
| No. 6 Fuel Oil                  | 68553-00-4 | 30-60    |   |  |   |
| Diesel Oil                      | 68334-30-5 | 10-40    | Skin - potential significant contribution to overall exposure by the cutaneous route<br>100 mg/m <sup>3</sup> TWA |  |   |
| Petroleum Residua               | Mixture    | 0-24     |   |  |   |
| Sulfur Compounds                | Mixture    | 1-3      |   |  |   |
| Naphthalene                     | 91-20-3    | 0.01-0.2 | Skin - potential significant contribution to overall exposure by the cutaneous route<br>10 ppm TWA<br>15 ppm STEL | = 10 ppm TWA<br>= 50 mg/m <sup>3</sup> TWA<br>= 15 ppm STEL<br>= 75 mg/m <sup>3</sup> STEL |   |
| Hydrogen Sulfide                | 7783-06-4  | 0-0.01   | 1 ppm TWA<br>5 ppm STEL   | = 10 ppm TWA<br>= 14 mg/m <sup>3</sup> TWA<br>= 15 ppm STEL<br>= 21 mg/m <sup>3</sup> STEL | Marathon Exposure Guideline:<br>10 ppm TWA<br>15 ppm STEL |

**Notes:** The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.



### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

WARNING!

CONTAINS HYDROGEN SULFIDE GAS. MAY BE FATAL IF INHALED  
GAS MAY EVOLVE FROM THIS MATERIAL AND ACCUMULATE IN CONFINED SPACES.  
VAPORS, FUMES, OR MISTS MAY CAUSE RESPIRATORY TRACT IRRITATION  
OVEREXPOSURE MAY CAUSE CNS DEPRESSION

POTENTIAL REPRODUCTIVE HAZARD  
SUSPECT CANCER HAZARD  
REPEATED SKIN CONTACT HAS PRODUCED SYSTEMIC TOXICITY IN LABORATORY ANIMALS.  
SEE TOXICOLOGICAL INFORMATION SECTION FOR MORE INFORMATION

COMBUSTIBLE LIQUID AND VAPOR

STABLE

#### Inhalation:

May release hydrogen sulfide gas which is highly toxic.

May be harmful or fatal if inhaled. Hydrogen sulfide can cause respiratory paralysis and death, depending on the concentration and duration of exposure. Do not rely on ability to smell vapors, since loss of smell rapidly occurs. Effects of overexposure include irritation of the nose and throat, nausea, vomiting, diarrhea, abdominal pain and signs of nervous system depression (e.g. headache, drowsiness, dizziness, loss of coordination and fatigue), irregular heartbeats, pulmonary edema, weakness and convulsions.

Significant concentrations of hydrogen sulfide gas can be present in the vapor space of storage tanks and bulk transport compartments (See Sections 7, 8 & 11).

See Toxicological Effects (Section 11) for more information.

#### Ingestion:

Swallowing this material may be harmful. Ingestion may cause gastrointestinal irritation and diarrhea. Symptoms may include salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under "Inhalation" (see Inhalation section).

#### Skin contact:

Contact may cause reddening, itching and inflammation. Skin contact may cause harmful effects in other parts of the body. See "Toxicological Information" Section for more information.

#### Eye contact:

Contact may cause pain and severe reddening and inflammation of the conjunctiva. Effects may become more serious with repeated or prolonged contact.

#### Carcinogenic Evaluation:

#### Product information:

| Name                               | IARC<br>Carcinogens: | NTP<br>Carcinogens: | ACGIH -<br>Carcinogens: | OSHA - Select<br>Carcinogens: |
|------------------------------------|----------------------|---------------------|-------------------------|-------------------------------|
| Marathon No. 4 Fuel Oil<br>Mixture | NE                   |                     |                         |                               |

#### Notes:

The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of residual (heavy) fuel oil in animals.

#### Component Information:

| Name | IARC<br>Carcinogens: | NTP<br>Carcinogens: | ACGIH -<br>Carcinogens: | OSHA - Select<br>Carcinogens: |
|------|----------------------|---------------------|-------------------------|-------------------------------|
|------|----------------------|---------------------|-------------------------|-------------------------------|

| Name                     | IARC Carcinogens:   | NTP Carcinogens:   | ACGIH - Carcinogens:  | OSHA - Select Carcinogens: |
|--------------------------|---------------------|--|---|----------------------------|
| Diesel Oil<br>68334-30-5 | Monograph 45 [1989] | male mice-equivocal evidence; female mice-equivocal evidence   | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans | Present                    |
| Naphthalene<br>91-20-3   | Monograph 82 [2002] | Reasonably Anticipated To Be A Human Carcinogen<br>male rat-clear evidence;<br>female rat-clear evidence;<br>male mice-no evidence;<br>female mice-some evidence | A4 - Not Classifiable as a Human Carcinogen                       | Present                    |

**Notes:**

The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of catalytically cracked clarified oil (carbonblack feedstock) in animals.

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of diesel fuel/fuel oil in humans. IARC determined that there was limited evidence for the carcinogenicity of marine diesel fuel in animals. Distillate (light) diesel fuels were not classifiable as to their carcinogenicity to humans (Group 3A)

The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have concluded that certain polycyclic aromatic hydrocarbons, i.e. (benzo(a)pyrene, benz(a)anthracene, benzo(a)phenanthrene, indeno(1,2,3-cd)pyrene, benzo(j)fluoranthene, benzo(j,k,fluorine, benzo(g,h,i)perylene, and 5-methylchrysene are probably carcinogenic to humans (Group 2A and B).

The International Agency for Research on Cancer (IARC) and the Environmental Protection Agency (EPA) have determined that naphthalene is a possible human carcinogen.

## 4. FIRST AID MEASURES

**Eye Contact:**

Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.

**Skin Contact:**

Wash with soap and large amounts of water for at least 15 minutes. Remove contaminated clothing. If symptoms or irritation occur, call a physician.

**Ingestion:**

Ingestion not likely. If swallowed, do not induce vomiting and do not give liquids. Immediately call a physician.

**Inhalation:**

If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.

**NOTES TO PHYSICIAN:**

INHALATION: Inhalation exposure can produce toxic effects. Treat intoxications as hydrogen sulfide exposures. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis.

## 4. FIRST AID MEASURES

### Medical Conditions

#### Aggravated By Exposure:

Preexisting skin conditions, respiratory disorders, and impaired liver function may be aggravated by exposure to components of this product.

## 5. FIRE FIGHTING MEASURES

### Suitable extinguishing media:

For small fires, Class B fire extinguishing media such as CO<sub>2</sub>, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

### Specific hazards:

This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

### Special protective equipment for firefighters:

Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.

### Flash point:

131 (Min) F

### Autoignition temperature:

No data available.

### Flammable limits in air - lower (%):

1.0

### Flammable limits in air - upper (%):

6.0

### NFPA rating:

Health: 2

Flammability: 2

Instability: 1

Other: -

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return product to source.

## 7. HANDLING AND STORAGE

### Handling:

## 7. HANDLING AND STORAGE

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues. The fuel oil contained in this product may flash if product temperature is >131 F.

Harmful concentrations of hydrogen sulfide (H<sub>2</sub>S) gas can be generated and accumulate in storage tanks and bulk transport compartments. Stay upwind and vent open hatches before unloading.

Avoid skin contact. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

- Engineering measures:** Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
- Respiratory protection:** Not required under normal conditions and adequate ventilation. Use atmosphere supplying respirators in confined spaces or when vapors exceed permissible limits. Self-contained breathing apparatus should be used for fire fighting.
- Skin and body protection:** Impermeable gloves (e.g., nitrile, viton, tyvek/saranex 23) to prevent skin contact.
- Eye protection:** Goggles and faceshield when handling hot material.
- Hygiene measures:** Use mechanical ventilation equipment that is explosion-proof. Chemical resistant apron or other protective clothing may be needed to avoid skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

|   |                          |
|---|--------------------------|
| <b>Appearance:</b>                              | Light-dark, Brown Liquid |
| <b>Physical state (Solid/Liquid/Gas):</b>       | Liquid                   |
| <b>Substance type (Pure/Mixture):</b>           | Mixture                  |
| <b>Color:</b>                                   | Light to Dark brown      |
| <b>Odor:</b>                                    | Hydrocarbon              |
| <b>Molecular weight:</b>                        | Not determined.          |
| <b>pH:</b>                                      | Neutral                  |
| <b>Boiling point/range (5-95%):</b>             | 400-1000 F               |
| <b>Melting point/range:</b>                     | Not determined.          |
| <b>Decomposition temperature:</b>               | Not applicable.          |
| <b>Specific gravity:</b>                        | 0.89-0.94                |
| <b>Density:</b>                                 | 7.4-7.8 lbs/gal          |
| <b>Bulk density:</b>                            | No data available.       |
| <b>Vapor density:</b>                           | No data available.       |
| <b>Vapor pressure:</b>                          | 1 mm Hg @ 160 F          |
| <b>Evaporation rate:</b>                        | No data available.       |
| <b>Solubility:</b>                              | Negligible               |
| <b>Solubility in other solvents:</b>            | No data available.       |
| <b>Partition coefficient (n-octanol/water):</b> | No data available.       |
| <b>VOC content(%):</b>                          | No data available.       |
| <b>Viscosity:</b>                               | No data available.       |

## 10. STABILITY AND REACTIVITY

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Stability:</b>                        | The material is stable at 70 F, 760 mm pressure.                                 |
| <b>Polymerization:</b>                   | Will not occur.  |
| <b>Hazardous decomposition products:</b> | Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons. |
| <b>Materials to avoid:</b>               | Strong oxidizers such as nitrates, chlorates, peroxides.                         |
| <b>Conditions to avoid:</b>              | Sources of heat or ignition.   |

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

### Product information:

| Name                    | CAS Number | Inhalation:       | Dermal:           | Oral:             |
|-------------------------|------------|-------------------|-------------------|-------------------|
| Marathon No. 4 Fuel Oil | Mixture    | No data available | No data available | No data available |

### Toxicology Information:

**GAS OILS:** Oils similar to this material have been shown to cause adverse effects in the liver and kidneys of laboratory rodents, and an increase in the incidence of fetal resorptions in pregnant laboratory rodents following prolonged and repeated exposure. Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The international Agency for Research on Cancer (IARC) has concluded that this category of untreated and mildly treated oils are carcinogenic to humans (Group 1).

**CATALYTICALLY CRACKED CLARIFIED OIL:** Genotoxicity: Findings from in vitro and in vivo studies of this material have been both negative and positive, but the overall weight of evidence suggests this material is genotoxic. Studies of repeated, prolonged dermal exposure in rodents have demonstrated evidence of skin cancer, liver and thymus damage, and anemia. Fetal death and fetal malformations were observed in pregnant rodents following dermal exposure. These findings indicate components of this material may be absorbed through the skin and cause adverse systemic effects. This material may be described as a high-boiling fraction of catalytically cracked petroleum. The International Agency for Research on Cancer (IARC) has identified high-boiling fractions of catalytically cracked petroleum streams as 'untreated or mildly-treated oils' and has classified these oils as Group 1, Carcinogenic to Humans.

**MIDDLE DISTILLATES, PETROLEUM:** Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**POLYCYCLIC AROMATIC HYDROCARBONS:** This product contains polycyclic aromatic hydrocarbons (PAH) at a level of >0.1%. Some PAH's that have been identified in this product such as benzo(a)pyrene, benz(a)anthracene and indeno(1,2,3-cd)pyrene have been shown to be carcinogenic in experimental animals. An increased risk of cancer has been observed in workers employed in the aluminum production, coal gasification, coal-tar pitch, coke production and iron and steel industries that had been occupationally exposed to PAH'. Since these kinds of PAHs have been measured at high levels in air samples taken in these industries, The International Agency for Research on Cancer (IARC) has concluded that these PAHs are probably carcinogenic to humans.

**HYDROGEN SULFIDE:** Hydrogen sulfide gas has an unpleasant odor that diminishes with increased exposure. Eye irritation may occur at levels above 4 ppm. Olfactory fatigue occurs rapidly at levels of 50 ppm or higher. Odor is not a reliable warning property. Respiratory effects include irritation with possible pulmonary edema at levels above 50 ppm. At 500 ppm immediate loss of consciousness and death can occur. NIOSH has determined that 100 ppm hydrogen sulfide is

immediately dangerous to life and health (IDLH).

**TARGET ORGANS:** central nervous system, lungs, respiratory system, eyes, skin, kidney, liver, blood spleen, thymus, immune system, testes, reproductive organs,

## 12. ECOTOXICOLOGICAL INFORMATION

**Mobility:**

May partition into air, soil and water.

**Ecotoxicity:**

Toxic to aquatic organisms.

**Bioaccumulation:**

May bioaccumulate in aquatic organisms.

**Persistence/Biodegradation:**

Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

**Cleanup Considerations:**

This material as supplied and by itself, when discarded or disposed of, is not an EPA RCRA hazardous waste according to federal regulations. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**49 CFR 172.101:**

**DOT:**

**Transport Information:** This material when transported via US commerce would be regulated by DOT Regulations.

|                                       |                 |
|---------------------------------------|-----------------|
| <b>Proper shipping name:</b>          | Fuel Oil, No. 4 |
| <b>UN/Identification No:</b>          | NA 1993         |
| <b>Hazard Class:</b>                  | 3               |
| <b>Packing group:</b>                 | III             |
| <b>DOT reportable quantity (lbs):</b> | Not applicable. |

|                              |                 |
|------------------------------|-----------------|
| <b>Proper shipping name:</b> | Fuel Oil, No. 4 |
| <b>UN/Identification No:</b> | NA 1993         |
| <b>Hazard Class:</b>         | 3               |
| <b>Packing group:</b>        | III             |

## 15. REGULATORY INFORMATION

### US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

### EPA Superfund Amendment & Reauthorization Act (SARA):

#### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

| Name                            | CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs |
|---------------------------------|---|
| Catalytic Cracked Clarified Oil | NA  |
| No. 6 Fuel Oil                  | NA  |
| Diesel Oil                      | NA  |
| Petroleum Residua               | NA  |
| Sulfur Compounds                | NA  |
| Naphthalene                     | NA  |
| Hydrogen Sulfide                | = 500 lb TPQ  |

#### SARA Section 304:

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

| Name                            | CERCLA/SARA - Hazardous Substances and their Reportable Quantities |
|---------------------------------|--|
| Catalytic Cracked Clarified Oil | NA   |
| No. 6 Fuel Oil                  | NA   |
| Diesel Oil                      | NA   |
| Petroleum Residua               | NA   |
| Sulfur Compounds                | NA   |
| Naphthalene                     | = 100 lb final RQ<br>= 45.4 kg final RQ                            |
| Hydrogen Sulfide                | = 100 lb final RQ<br>= 45.4 kg final RQ                            |

#### SARA Section 311/312

The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Chronic Health Hazard
- Fire Hazard
- Extremely Hazardous

#### SARA Section 313:

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

| Name                            | CERCLA/SARA 313 Emission reporting: |
|---------------------------------|-------------------------------------|
| Catalytic Cracked Clarified Oil | None                                |
| No. 6 Fuel Oil                  | None                                |
| Diesel Oil                      | None                                |
| Petroleum Residua               | None                                |
| Sulfur Compounds                | None                                |
| Naphthalene                     | = 0.1 % de minimis concentration    |
| Hydrogen Sulfide                | None                                |

### State and Community Right-To-Know Regulations:

The following component(s) of this material are identified on the regulatory lists below:

MSDS ID NO.: 0242MAR019

Product name: Marathon No. 4 Fuel Oil

|   |             |
|---|-------------|
| Catalytic Cracked Clarified Oil   |             |
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Not Listed  |
| New Jersey Right-To-Know:   | Not Listed. |
| Pennsylvania Right-To-Know:   | Not Listed. |
| Massachusetts Right-To Know:  | Not Listed. |
| Florida substance List:   | Not Listed. |
| Rhode Island Right-To-Know:   | Not Listed  |
| Michigan critical materials register list:                                | Not Listed. |
| Massachusetts Extraordinarily Hazardous Substances:                       | Not Listed  |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Not Listed  |
| New Jersey - Special Hazardous Substances:                                | Not Listed  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed  |
| Illinois - Toxic Air Contaminants   | Not Listed  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed  |
| No. 6 Fuel Oil  |             |
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Not Listed  |
| New Jersey Right-To-Know:   | Not Listed. |
| Pennsylvania Right-To-Know:   | Not Listed. |
| Massachusetts Right-To Know:  | Not Listed. |
| Florida substance List:   | Not Listed. |
| Rhode Island Right-To-Know:   | Not Listed  |
| Michigan critical materials register list:                                | Not Listed. |
| Massachusetts Extraordinarily Hazardous Substances:                       | Not Listed  |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Not Listed  |
| New Jersey - Special Hazardous Substances:                                | Not Listed  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed  |
| Illinois - Toxic Air Contaminants   | Not Listed  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed  |
| Diesel Oil  |             |
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Not Listed  |
| New Jersey Right-To-Know:   | Not Listed. |
| Pennsylvania Right-To-Know:   | Present     |
| Massachusetts Right-To Know:  | Not Listed. |
| Florida substance List:   | Not Listed. |
| Rhode Island Right-To-Know:   | Flammable   |
| Michigan critical materials register list:                                | Not Listed. |
| Massachusetts Extraordinarily Hazardous Substances:                       | Not Listed  |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Not Listed  |

#### Catalytic Cracked Clarified Oil

|   |            |
|---|------------|
| New Jersey - Special Hazardous Substances:                                | Not Listed |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed |
| Illinois - Toxic Air Contaminants   | Not Listed |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed |

#### Petroleum Residua

|   |             |
|---|-------------|
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Not Listed  |
| New Jersey Right-To-Know:   | Not Listed. |
| Pennsylvania Right-To-Know:   | Not Listed. |
| Massachusetts Right-To Know:  | Not Listed. |
| Florida substance List:   | Not Listed. |
| Rhode Island Right-To-Know:   | Not Listed  |
| Michigan critical materials register list:                                | Not Listed. |
| Massachusetts Extraordinarily Hazardous Substances:                       | Not Listed  |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Not Listed  |
| New Jersey - Special Hazardous Substances:                                | Not Listed  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed  |
| Illinois - Toxic Air Contaminants   | Not Listed  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed  |

#### Sulfur Compounds

|   |             |
|---|-------------|
| Louisiana Right-To-Know:  | Not Listed  |
| California Proposition 65:  | Not Listed  |
| New Jersey Right-To-Know:   | Not Listed. |
| Pennsylvania Right-To-Know:   | Not Listed. |
| Massachusetts Right-To Know:  | Not Listed. |
| Florida substance List:   | Not Listed. |
| Rhode Island Right-To-Know:   | Not Listed  |
| Michigan critical materials register list:                                | Not Listed. |
| Massachusetts Extraordinarily Hazardous Substances:                       | Not Listed  |
| California - Regulated Carcinogens:                                       | Not Listed  |
| Pennsylvania RTK - Special Hazardous Substances:                          | Not Listed  |
| New Jersey - Special Hazardous Substances:                                | Not Listed  |
| New Jersey - Environmental Hazardous Substances List:                     | Not Listed  |
| Illinois - Toxic Air Contaminants   | Not Listed  |
| New York - Reporting of Releases Part 597 - List of Hazardous Substances: | Not Listed  |

#### Naphthalene

|                              |                                  |
|------------------------------|----------------------------------|
| Louisiana Right-To-Know:     | Not Listed                       |
| California Proposition 65:   | carcinogen, initial date 4/19/02 |
| New Jersey Right-To-Know:    | sn 1322                          |
| Pennsylvania Right-To-Know:  | Environmental hazard             |
| Massachusetts Right-To Know: | Present                          |

**Catalytic Cracked Clarified Oil**

Florida substance List: Not Listed.  
 Rhode Island Right-To-Know: Toxic; Flammable  
 Michigan critical materials register list: Not Listed.  
 Massachusetts Extraordinarily Hazardous Substances: Not Listed  
 California - Regulated Carcinogens: Not Listed  
 Pennsylvania RTK - Special Hazardous Substances: Not Listed  
 New Jersey - Special Hazardous Substances: carcinogen  
  
 New Jersey - Environmental Hazardous Substances List: SN 1322 TPQ 500 lb  
 Illinois - Toxic Air Contaminants Present  
 New York - Reporting of Releases Part 597 - List of Hazardous Substances: = 1 lb RQ land/water  
 = 100 lb RQ air

**Hydrogen Sulfide**

Louisiana Right-To-Know: Not Listed  
 California Proposition 65: Not Listed  
 New Jersey Right-To-Know: sn 1017  
 Pennsylvania Right-To-Know: Environmental hazard  
 Massachusetts Right-To Know: Extraordinarily hazardous  
 Florida substance List: Not Listed.  
 Rhode Island Right-To-Know: Toxic; Flammable  
 Michigan critical materials register list: Not Listed.  
 Massachusetts Extraordinarily Hazardous Substances: extraordinarily hazardous  
 California - Regulated Carcinogens: Not Listed  
 Pennsylvania RTK - Special Hazardous Substances: Not Listed  
 New Jersey - Special Hazardous Substances: flammable - fourth degree  
 New Jersey - Environmental Hazardous Substances List: SN 1017 TPQ 500 lb  
 Illinois - Toxic Air Contaminants Not Listed  
 New York - Reporting of Releases Part 597 - List of Hazardous Substances: = 100 lb RQ air  
 = 100 lb RQ land/water

**Canadian Regulatory Information:**

Canada DSL/NDL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

| Name             | Canada - WHMIS: Classifications of Substances: | Canada - WHMIS: Ingredient Disclosure: |
|------------------|--|--|
| Diesel Oil       | B3, D2B  |  |
| Naphthalene      | B4, D2A  | 1 %                                    |
| Hydrogen Sulfide | A, B1, D1A, D2B                                | 1 %                                    |

**NOTE:** Not Applicable.

**16. OTHER INFORMATION**

**Additional Information:**

The pronounced and easily-recognized rotten egg odor of hydrogen sulfide gas (H2S) can be detected at concentrations as low as 0.003-0.13 ppm. Since higher H2S concentrations (100-200 ppm) cause olfactory fatigue and other hydrocarbon odors can "mask" H2S, the sense of smell cannot be used as a reliable indicator of H2S exposure.

**Prepared by:**

Craig M. Parker Manager, Toxicology And Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LP (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**