1. IDENTIFICATION

Product Name: Marathon Petroleum Light Cutter

Synonym: Light Cutter; Light Cutter Stock; Residual Fuel Light Cutter Stock; Sour Distillate

Product Code: 0381MAR020

Chemical Family: Petroleum Hydrocarbon

Recommended Use: Feedstock.

Restrictions on Use: All others.

Manufacturer, Importer, or Responsible Party Name and Address:
MARATHON PETROLEUM COMPANY LP
539 South Main Street
Findlay, OH 45840

SDS information: 1-419-421-3070

Emergency Telephone: 1-877-627-5463

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Hazards Not Otherwise Classified (HNOC)
Static accumulating flammable liquid
May release hydrogen sulfide gas

Label elements

EMERGENCY OVERVIEW

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SAFETY DATA SHEET

SDS ID NO.: 0381MAR020
Revision Date: 05/21/2015

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Danger

FLAMMABLE LIQUID AND VAPOR
May accumulate electrostatic charge and ignite or explode
May release highly toxic hydrogen sulfide gas that quickly fatigues the sense of smell
May be fatal if swallowed and enters airways
Harmful if inhaled
Causes skin irritation
May cause drowsiness or dizziness
May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs (thymus, liver, spleen, bone marrow, blood) through prolonged or repeated exposure
Very toxic to aquatic life with long lasting effects

Appearance Clear to Brown Liquid
Physical State Liquid
Odor Hydrocarbon

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools.
Take precautionary measures against static discharge
Do not breathe mist/vapors/spray
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wash hands and any possibly exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid release to the environment

Precautionary Statements - Response
IF exposed or concerned: Get medical attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical attention
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting
In case of fire: Use water spray, fog or regular foam for extinction
Collect spillage

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container at an approved waste disposal plant
3. COMPOSITION/INFORMATION ON INGREDIENTS

Light Cutter is a complex petroleum mixture of various light and heavy middle distillates and /or light gas oils.

Composition Information:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS Number</th>
<th>% Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run</td>
<td>8008-20-6</td>
<td>0-100</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run</td>
<td>64741-43-1</td>
<td>0-100</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate</td>
<td>64741-60-2</td>
<td>0-100</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour</td>
<td>68783-08-4</td>
<td>0-40</td>
</tr>
<tr>
<td>Sulfur Compounds</td>
<td>Mixture</td>
<td>0.5-4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.01-0.15</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>7783-06-4</td>
<td>0-0.01</td>
</tr>
</tbody>
</table>

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First Aid Measures

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation: Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Skin Contact: Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists.

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

Eye Contact: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion: Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse Effects: Prolonged and repeated contact may cause defatting and drying of the skin and may lead to irritation and/or dermatitis.

Indication of any immediate medical attention and special treatment needed

Notes To Physician: INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

### Unsuitable extinguishing media
Do not use straight water streams to avoid spreading fire.

### Specific hazards arising from the chemical
This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

### Hazardous combustion products
Smoke, carbon monoxide, and other products of incomplete combustion.

### Explosion data
- Sensitivity to Mechanical Impact No.
- Sensitivity to Static Discharge Yes.

### Special protective equipment and precautions for firefighters
Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

### Additional firefighting tactics
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles: if this is impossible, withdraw from area and let fire burn.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.

### 6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Personal precautions:</th>
<th>Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective equipment:</td>
<td>Use personal protection measures as recommended in Section 8.</td>
</tr>
<tr>
<td>Emergency procedures:</td>
<td>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.</td>
</tr>
<tr>
<td>Environmental precautions:</td>
<td>Avoid release to the environment. Avoid subsoil penetration.</td>
</tr>
<tr>
<td>Methods and materials for containment:</td>
<td>Contain liquid with sand or soil.</td>
</tr>
<tr>
<td>Methods and materials for cleaning up:</td>
<td>Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.</td>
</tr>
</tbody>
</table>

### 7. HANDLING AND STORAGE

**NFPA**
- Health 2
- Flammability 2
- Instability 0
- Special Hazard -

**SDS ID NO.:** 0381MAR020  
**Product name:** Marathon Petroleum Light Cutter  
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Safe Handling Precautions:
Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. 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 explosive residues may remain. Avoid contact with skin, eyes and clothing. Use personal protection recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements.

Harmful concentrations of hydrogen sulfide (H2S) gas can accumulate in excavations and low-lying areas as well as the vapor space of storage and bulk transport compartments. Stay upwind and vent open hatches before unloading. Sulfur containing products may cause polysulfide deposits (iron sulfide) to form inside iron storage tanks. These pyrophoric deposits, upon exposure to air, can ignite spontaneously.

Storage Conditions:
Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area.

Incompatible Materials
Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Name</th>
<th>ACGIH TLV</th>
<th>OSHA PELS:</th>
<th>OSHA - Vacated PELs</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run 8008-20-6</td>
<td>200 mg/m³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run 64741-43-1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate 64741-60-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour 68783-08-4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sulfur Compounds Mixture</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Naphthalene 91-20-3</td>
<td>10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route</td>
<td>TWA: 10 ppm TWA: 50 mg/m³</td>
<td>10 ppm TWA 50 mg/m³ TWA 15 ppm STEL 75 mg/m³ STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Hydrogen sulfide 7783-06-4</td>
<td>1 ppm TWA 5 ppm STEL Ceiling: 20 ppm Peak: 50 ppm</td>
<td>10 ppm TWA 14 mg/m³ TWA 15 ppm STEL 21 mg/m³ STEL</td>
<td>100 ppm</td>
<td></td>
</tr>
</tbody>
</table>

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

Engineering measures:
Local or general exhaust required in an enclosed area or when there is inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

Personal protective equipment

Eye protection:
Use goggles or face-shield if the potential for splashing exists.

Skin and body protection:
Use nitrile rubber, Viton®, or PVA gloves to prevent skin exposure. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times. Depending upon the conditions of use
and specific work situations, additional protective equipment and/or clothing may be required to control exposures.

**Respiratory protection:** Approved organic vapor chemical cartridge or supplied air respirators should be worn for exposures to any components exceeding the established exposure limits. Self-contained breathing apparatus should be used for fire fighting.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values (Method)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear to Brown Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear to Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Hydrocarbon</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>Melting Point / Freezing Point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Initial Boiling Point / Boiling Range</td>
<td>149-704 °C / 300-1300 °F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;56 °C / &gt;133 °F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability Limit in Air (%)</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>6.0</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>1.0</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Specific Gravity / Relative Density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available.</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available.</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No data available.</td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

## 10. STABILITY AND REACTIVITY

**Reactivity**

The product is non-reactive under normal conditions.

**Chemical stability**

The material is stable at 70°F (21°C), 760 mmHg pressure.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Will not occur.

**Conditions to avoid**

Sources of heat or ignition.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous decomposition products**

None known under normal conditions of use.
11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation
Harmful if inhaled. May cause drowsiness or dizziness. May release highly toxic hydrogen sulfide gas that quickly fatigues the sense of smell. Concentrations of >1000 ppm will cause immediate unconsciousness and death through respiratory paralysis.

Eye contact
Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.

Skin contact
Irritating to skin. Contact may cause reddening, itching and inflammation. May be absorbed through the skin in harmful amounts. Effects may become more serious with repeated or prolonged contact.

Ingestion
May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

<table>
<thead>
<tr>
<th>Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run 8008-20-6</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 5.28 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run 64741-43-1</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>1.72 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate 64741-60-2</td>
<td>&gt; 3200 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>4.65 mg/l (Rat) 4 h</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour 68783-08-4</td>
<td>&gt; 5000 mg/l (Rat)</td>
<td>&gt; 2000 mg/l (Rabbit)</td>
<td>4 mg/l (Rat) 4 h</td>
</tr>
<tr>
<td>Sulfur Compounds Mixture</td>
<td>-</td>
<td>-</td>
<td>&gt; 5 mg/l (Rat) 4 h</td>
</tr>
<tr>
<td>Naphthalene 91-20-3</td>
<td>490 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 340 mg/m³ (Rat) 1 h</td>
</tr>
<tr>
<td>Hydrogen sulfide 7783-06-4</td>
<td>-</td>
<td>-</td>
<td>444 ppm (Rat) 4 h</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer’s Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

Lifetime skin painting studies in animals with light and heavy vacuum distillates and with light and heavy catalytically cracked distillates produced skin tumors in animals. Repeated dermal application has produced severe irritation and systemic toxicity in subacute toxicity studies.

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).

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.

**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).

### Adverse effects related to the physical, chemical and toxicological characteristics

#### Signs and Symptoms
Overexposure to vapors may cause eye, skin and respiratory irritation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.

#### Sensitization
Not expected to be a skin or respiratory sensitizer.

#### Mutagenic effects
May cause genetic defects.

#### Carcinogenicity
Cancer designations are listed in the table below.

<table>
<thead>
<tr>
<th>Name</th>
<th>ACGIH (Class)</th>
<th>IARC (Class)</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run 8008-20-6</td>
<td>Confirmed animal carcinogen (A3)</td>
<td>Not Classifiable (3)</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run 64741-43-1</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate 64741-60-2</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour 68783-08-4</td>
<td>Mineral Oil (Poorly and Mildly Refined) Suspected human carcinogen (A2)</td>
<td>Mineral Oils (Untreated or Mildly Treated) Carcinogenic to humans (1)</td>
<td>Mineral Oils (Untreated and Mildly Treated) Known to be human carcinogen</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Sulfur Compounds Mixture</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Naphthalene 91-20-3</td>
<td>Confirmed animal carcinogen (A3)</td>
<td>Possible human carcinogen (2B)</td>
<td>Reasonably anticipated to be a human carcinogen</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Hydrogen sulfide 7783-06-4</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

#### Reproductive toxicity
Suspected of damaging fertility or the unborn child.

#### Specific Target Organ Toxicity (STOT) - single exposure
Central nervous system.

#### Specific Target Organ Toxicity (STOT) - repeated exposure

#### Aspiration hazard
May be fatal if swallowed or vomited and enters airways.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
This product should be considered very toxic to aquatic organisms, with the potential to
cause long lasting adverse effects in the aquatic environment.

<table>
<thead>
<tr>
<th>Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run 8008-20-6</td>
<td>72-hr EL50 = 5.0-11 mg/l Algae</td>
<td>96-hr LL50 = 18-25 mg/l Fish</td>
<td>-</td>
<td>48-hr EL50 = 1.4-21 mg/l Invertebrates</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run 64741-43-1</td>
<td>-</td>
<td>96-hr LL50 = 1-10 mg/l Fish</td>
<td>-</td>
<td>48-hr EL50 = 1-10 mg/l Daphnia</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate 64741-60-2</td>
<td>-</td>
<td>96-hr LC50 = 7.3 mg/L Zebrafish</td>
<td>-</td>
<td>48-hr EL50 &lt; 1 mg/l Daphnia</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour 68783-08-4</td>
<td>72-hr EC50 &lt;1 mg/l Algae</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sulfur Compounds Mixture</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Naphthalene 91-20-3</td>
<td>-</td>
<td>96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static)</td>
<td>-</td>
<td>48-hr LC50 = 1.6 mg/l Daphnia magna</td>
</tr>
<tr>
<td>Hydrogen sulfide 7783-06-4</td>
<td>-</td>
<td>96-hr LC50 = 0.016 mg/l Fathead minnow</td>
<td>96-hr LC50 = 0.013 mg/l Rainbow trout</td>
<td>-</td>
</tr>
</tbody>
</table>

Persistence and degradability Expected to be inherently biodegradable.

Bioaccumulation Has the potential to bioaccumulate.

Mobility in soil May partition into air, soil and water.

Other adverse effects No information available.

### 13. DISPOSAL CONSIDERATIONS

**Description of Waste Residues**
This material may be a flammable liquid waste.

**Safe Handling of Wastes**
Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

**Disposal of Wastes / Methods of Disposal**
The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Methods of Contaminated Packaging Disposal**
Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

### 14. TRANSPORT INFORMATION

**DOT (49 CFR 172.101):**
- **UN Proper Shipping Name:** Hydrocarbons, Liquid, N.O.S.
- **UN/Identification No:** UN 3295
- **Class:** 3
- **Packing Group:** III

**TDG (Canada):**
- **UN Proper Shipping Name:** Hydrocarbons, Liquid, N.O.S.
- **UN/Identification No:** UN 3295
- **Transport Hazard Class(es):** 3
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.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product may contain component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

<table>
<thead>
<tr>
<th>Name</th>
<th>CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run</td>
<td>NA</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run</td>
<td>NA</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate</td>
<td>NA</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour</td>
<td>NA</td>
</tr>
<tr>
<td>Sulfur Compounds</td>
<td>NA</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>NA</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>500</td>
</tr>
</tbody>
</table>

SARA Section 304: This product may contain 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:

<table>
<thead>
<tr>
<th>Name</th>
<th>Hazardous Substances RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run</td>
<td>NA</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run</td>
<td>NA</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate</td>
<td>NA</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour</td>
<td>NA</td>
</tr>
<tr>
<td>Sulfur Compounds</td>
<td>NA</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td>45.4 kg final RQ</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>100</td>
</tr>
</tbody>
</table>

SARA Section 311/312: The following EPA hazard categories apply to this product:

- Acute Health Hazard
- Chronic Health Hazard
- Fire Hazard

SARA Section 313: This product may contain component(s), which if in exceedance of the de minimis threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

<table>
<thead>
<tr>
<th>Name</th>
<th>CERCLA/SARA 313 Emission reporting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run</td>
<td>None</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run</td>
<td>None</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate</td>
<td>None</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour</td>
<td>None</td>
</tr>
<tr>
<td>Sulfur Compounds</td>
<td>None</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>0.1 % de minimis concentration</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

State and Community Right-To-Know Regulations:
The following component(s) of this material are identified on the regulatory lists below:

Kerosene, Straight Run
- Louisiana Right-To-Know: Not Listed
- California Proposition 65: Not Listed
New Jersey Right-To-Know: SN 1091
Pennsylvania Right-To-Know: Present
Massachusetts Right-To Know: Present
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
Substances:
New Jersey - Special Hazardous Substances: Not Listed
New Jersey - Environmental Hazardous Substances List: SN 1091 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories)
Illinois - Toxic Air Contaminants: Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed

Gas oils (petroleum), straight-run
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
Substances:
New Jersey - Special Hazardous Substances: Not Listed
New Jersey - Environmental Hazardous Substances: Not Listed
Illinois - Toxic Air Contaminants: Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed

Distillate, Catalytic Cracked Intermediate
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
Substances:
New Jersey - Special Hazardous Substances: Not Listed
New Jersey - Environmental Hazardous Substances: Not Listed
Illinois - Toxic Air Contaminants: Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed

Gas Oil, Full Range Sour
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:

**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:

**Naphthalene**
Louisiana Right-To-Know: Not Listed
California Proposition 65: Carcinogen, initial date 4/19/02
New Jersey Right-To-Know: SN 1322 SN 3758
Pennsylvania Right-To-Know: Environmental hazard Present (particulate)
Massachusetts Right-To-Know: Present
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 (Reportable at the de minimis quantity of >0.1%)
Illinois - Toxic Air Contaminants: Present
New York - Reporting of Releases Part 597 - 100 lb RQ (air); 1 lb RQ (land/water)
List of Hazardous Substances:

**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: Not Listed
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
Substances:
New Jersey - Special Hazardous Substances: Flammable - fourth degree
New Jersey - Environmental Hazardous Substances List:
Illinois - Toxic Air Contaminants: Not Listed
New York - Reporting of Releases Part 597 - 100 lb RQ (air); 100 lb RQ (land/water)
List of Hazardous Substances:

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

Canadian Regulatory Information: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

<table>
<thead>
<tr>
<th>Name</th>
<th>Canada - WHMIS: Classifications of Substances:</th>
<th>Canada - WHMIS: Ingredient Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosene, Straight Run</td>
<td>B3,D2B</td>
<td>1%</td>
</tr>
<tr>
<td>Gas oils (petroleum), straight-run</td>
<td>B3,D2A,D2B</td>
<td>1%</td>
</tr>
<tr>
<td>Distillate, Catalytic Cracked Intermediate</td>
<td>B3,D2A,D2B</td>
<td>0.1%</td>
</tr>
<tr>
<td>Gas Oil, Full Range Sour</td>
<td>B3,D2A,D2B</td>
<td>0.1%</td>
</tr>
<tr>
<td>Sulfur Compounds</td>
<td>Uncontrolled product according to WHMIS classification criteria</td>
<td>-</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>B4,D2A</td>
<td>0.1%</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>A,B1,D1A,D2B</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note: Not applicable.

16. OTHER INFORMATION

Prepared By: Toxicology and Product Safety

Revision Notes

Revision Date: 05/21/2015

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.