SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
   - Product name: FUEL OIL NO. 6
   - Product form: Mixture
   - CAS No: 68553-00-4
   - Formula: A high-viscosity residual oil
   - Other means of identification: Bunker C, Bunker fuels; IFO 180, IFO 280 AND IFO 380, utility fuel oil; heavy fuel oil; residual fuel oil; #6 residual fuel oil blendstock; ASTM No. 6 Grade Fuel Oil (D396).

1.2. Relevant identified uses of the substance or mixture and uses advised against
   - Use of the substance/mixture: Used in industrial burners, boiler fuel for electric utilities and bunker fuel for ocean going vessels. A Thick oil, fuel oil No. 6 is not usually used unless preheated to decrease its viscosity.

1.3. Details of the supplier of the safety data sheet
   - Apex Oil Company, Inc.
   - Clark Oil Trading Company
   - Enjet, LLC
   - 8235 Forsyth Boulevard, Suite 400
   - St. Louis, Missouri 63105
   - General Assistance 1-314-889-9600

1.4. Emergency telephone number
   - Emergency number: Chemtrec: 1-800-424-9300 (Apex reference number: 225708)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   - GHS-US classification
     - Flam. Liq. 3 H226
     - Carc. 1B H350

2.2. Label elements
   - GHS-US labelling
     - Hazard pictograms (GHS-US): 
       - GHS02
       - GHS08

   - Signal word (GHS-US): Danger
   - Hazard statements (GHS-US): H226 - Flammable liquid and vapor
     - H350 - May cause cancer
   - Precautionary statements (GHS-US): P201 - Obtain special instructions before use
     - P202 - Do not handle until all safety precautions have been read and understood
     - P210 - Keep away from heat, open flames, sparks. - No smoking
     - P233 - Keep container tightly closed
     - P240 - Ground/bond container and receiving equipment
     - P241 - Use explosion-proof electrical, lighting, ventilating equipment
     - P242 - Use only non-sparking tools
     - P243 - Take precautionary measures against static discharge
     - P280 - Wear eye protection, face protection, protective clothing, protective gloves
     - P303+P361+P353 - IF ON SKIN (or hair): Immediately take off all contaminated clothing. Rinse skin with water/shower
     - P308+P313 - If exposed or concerned: Get medical advice/attention
     - P370+P378 - In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish
     - P403+P235 - Store in a well-ventilated place. Keep cool
     - P405 - Store locked up
     - P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards
   - No additional information available

2.4. Unknown acute toxicity (GHS US)
   - No data available
SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil, no. 6</td>
<td>(CAS No) 68553-00-4</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>(CAS No) 7783-06-4</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion: IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Suspected of causing cancer.
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause skin irritation.
Symptoms/injuries after eye contact: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion: May cause gastrointestinal irritation.
Chronic symptoms: Suspected of causing cancer.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapor.
Explosion hazard: Heating may cause an explosion.
Reactivity: No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment: Wear Protective equipment as described in Section 8.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.
6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Eliminate ignition sources. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Immediately rinse contaminated clothing thoroughly with water. Use only in well-ventilated areas. Avoid breathing vapors, mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Use explosion-proof equipment.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Direct sunlight, Incompatible materials, Food. Keep the container tightly closed. Avoid temperature extremes. Keep away from ignition sources. Containers which are opened should be properly resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Ground and bond all transfer and storage equipment.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Fuel oil, no. 6 (68553-00-4)</th>
<th>OELs not established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remark (ACGIH)</td>
<td>OELs not established</td>
</tr>
<tr>
<td>Remark (OSHA)</td>
<td>OELs not established</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment: Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection: Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Brown. Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Heavy, petroleum/asphalt odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
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</table>

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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 260 °C (500 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>60 °C (140 °F) minimum</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>407 °C (765 °F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.2 mm Hg @ 21 °C (70 °F)</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.9 - 1.07 (H₂O = 1) @ 15 °C (60 °F)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble (water)</td>
</tr>
<tr>
<td>Log Pow</td>
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</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>96 cSt @ 50 °C (122 °F)</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>3.9 - 20.1 vol %</td>
</tr>
</tbody>
</table>

9.2. Other information
VOC content : > 50 % by volume

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reactions known under normal conditions of use.

10.2. Chemical stability
Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
Avoid contact with hot surfaces. Avoid contact with: Ignition sources. Incompatible materials.

10.5. Incompatible materials
Oxidizing agent.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

**FUEL OIL NO. 6 (68553-00-4)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>9 g/kg</td>
</tr>
</tbody>
</table>

**Fuel oil, no. 6 (68553-00-4)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5300 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

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Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause skin irritation.
Symptoms/injuries after eye contact: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion: May cause gastrointestinal irritation.
Chronic symptoms: Suspected of causing cancer.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: No information available.

12.2. Persistence and degradability
FUEL OIL NO. 6 (68553-00-4)
Persistence and degradability: No information available.

12.3. Bioaccumulative potential
FUEL OIL NO. 6 (68553-00-4)
Bioaccumulative potential: No information available.

12.4. Mobility in soil
FUEL OIL NO. 6 (68553-00-4)
Ecology - soil: No information available.

12.5. Other adverse effects
Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.
Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT
Transport document description: NA1993 Fuel oil (Fuel Oil No. 6), 3, III
DOT NA no.: NA1993
Proper Shipping Name (DOT): Fuel oil
Department of Transportation (DOT) Hazard Classes: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT): 3 - Flammable liquid

Packing group (DOT): III - Minor Danger
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 220 L
DOT Vessel Stowage Location: A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Additional information
Other information: No supplementary information available.

Transport by sea
No additional information available

Air transport
No additional information available
SECTION 15: Regulatory information

15.1. US Federal regulations

**FUEL OIL NO. 6 (68553-00-4)**

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory. All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list.

| SARA Section 311/312 Hazard Classes | Delayed (chronic) health hazard | Fire hazard |

15.2. International regulations

**CANADA**

**FUEL OIL NO. 6**

All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List).

15.3. US State regulations

**California Proposition 65**

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

<table>
<thead>
<tr>
<th>Sulfur (7704-34-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

**Hydrogen sulfide (7783-06-4)**

| U.S. - Massachusetts - Right To Know List |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

SECTION 16: Other information

**Indication of changes**

Revision 1.0: New SDS Created.

**Revision date**

03/06/2015

**Other information**

Author: BCS.

**NFPA health hazard**

3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

**NFPA fire hazard**

2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

**NFPA reactivity**

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS III Rating**

| Health | 3* |
| Flammability | 2 |
| Physical | 0 |

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