1. Identification

Product Name: Grade No. 1 Diesel S-15
Product Code: 8165
Recommended Use: #1 ULSD Clear On-Road
Company: American Refining Group, Inc.
77 North Kendall Avenue
Bradford, PA 16701
www.amref.com
msds@amref.com

Emergency Telephone Number(s):
Chemtrec 1-800-424-9300 (24 HRS)
ARG: 814-368-1297 (24 HRS)

2. Hazards Identification

GHS Classification:
- Aspiration Hazard Category 1
- Carcinogenicity Category 2
- Skin Corrosion/Irritation Category 2
- Flammable liquids Category 3

Signal Word: DANGER!
Suspected of causing cancer.

Hazard Statements:
- May be fatal if swallowed and enters airways.
- Harmful if inhaled.
- Causes skin irritation
- Flammable liquid and vapor

Other Hazard Information:
Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment
Spark may ignite liquid and vapor may cause flash fire.
Liquid conductivity is <100 pS/m (picosiemens/meter) at 77°F

GHS Pictogram:

Precautionary Statements:
- If swallowed: immediately call a poison center/doctor. Do NOT induce vomiting.
- Wash thoroughly after handling.
- Wear Protective Gloves.
- If on skin: wash with plenty of soap and water.
- If skin irritation occurs: get medical advice/attention.

Issue Date: 5 May 2015
2. Hazards Identification

Take off contaminated clothing and wash before reuse. Keep away from flames and hot surfaces.-No smoking. Store in a well-ventilated place. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting equipment.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Component</th>
<th>Common Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-81-0</td>
<td>Kerosene, Petroleum, Hydro desulfurized</td>
<td>Kerosene</td>
<td>100%</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Eyes**
Check for and remove any contact lenses. Flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.

**Skin**
In case of contact, flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

**Inhalation**
Move exposed person to fresh air. Avoid breathing fumes/mist/vapor.

**Ingestion**
DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water. Seek medical attention immediately.

**Symptoms (Acute and delayed)**
Exposure to high concentrations of vapors may cause irritation to the eyes, nose and throat, nausea, dizziness and loss of consciousness.

**Note to Physicians**
No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire Fighting Measures

**Suitable Extinguishing Media**
Use dry chemical, CO₂, water spray (FOG) or foam

**Unsuitable Extinguishing Media**
Avoid solid water stream as it may scatter and spread fire.

**Specific Hazards Arising from Chemical**
Elevated temperatures can lead to the formation of irritating fumes and vapors. Decomposing products may include the following materials: Carbon dioxide and Carbon monoxide.

This product is a static accumulating liquid. Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminates. Restrict flow velocity to avoid build-up of static charge. Refer to NFPA 77, API 2003, and CENELEC CLC/TR 50404 for further guidance.

**Protective Equipment and Precautions for Firefighters**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Issue Date: 5 May 2015
6. Accidental Release Measures

**Personal Precautions**
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Environmental Precautions**
Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for Containment**
Stop leak if without risk. Earthen dams and diking if the spill is large quantities.

**Methods for Cleanup**
A vapor suppressing foam may be used to reduce vapors. Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container.

7. Handling and Storage

**Handling Procedures**
Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

**Shipping and Storing Procedures**
Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous.

**Incompatibilities:**
Oxidizing Agents

8. Exposure Controls / Personal Protection

**Component Exposure Limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Mist (mineral)</td>
<td>TWA: N/A ppm</td>
<td>TWA: 5 mg/m³</td>
<td>STEL: N/A ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: N/A ppm</td>
<td>TWA: 5 mg/m³</td>
<td>STEL: N/A ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: N/A ppm</td>
<td>TWA: 5 mg/m³</td>
<td>STEL: N/A ppm</td>
</tr>
</tbody>
</table>

N/A signifies not available

**Engineering Controls**
This product is a static accumulating liquid. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to

Issue Date: 5 May 2015
8. Exposure Controls / Personal Protection

Eye/Face Protection
- airborne contaminants below any recommended or statutory limits
- Chemical goggles and face shield.

Skin Protection
- Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Respiratory Protection
- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

General Hygiene
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

9. Physical and Chemical Properties

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Red</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper/Lower Flammability Limits</td>
<td>Not Available</td>
</tr>
<tr>
<td>Odor</td>
<td>Diesel/Kerosene</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available</td>
</tr>
<tr>
<td>Melting/Freezing Point (°F)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Initial Boiling Point (°F)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Range (°F)</td>
<td>&gt;163</td>
</tr>
<tr>
<td>Flash Point (°F)</td>
<td>100</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>1 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>7.4</td>
</tr>
<tr>
<td>Relative Density (lbs/gal)</td>
<td>7.1</td>
</tr>
<tr>
<td>Water Soluble</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition Temperature (°F)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition Temperature (°F)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Viscosity (40 °C mm²/s)</td>
<td>1.8</td>
</tr>
</tbody>
</table>

10. Chemical Stability & Reactivity Information

Reactivity
- Polymerization will not occur

Chemical Stability
- Stable under normal conditions. If heated product’s static accumulation will rise and could cause flash fire.

Hazardous Reactions
- None, under normal processing.

Conditions to Avoid
- High temperatures, flames, sparks

Incompatibility
- Strong acids and oxidizing materials

Hazardous Decomposition
- Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

Issue Date: 5 May 2015
11. Toxicological Information

Acute Exposure
Respiratory Irritation
An inhalation hazard may only arise if product is used in aerosol conditions or if heated up. If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract. Based on data from similar materials.

Eye Irritation
Not expected to cause eye irritation.

Skin Irritation
Causes skin irritation. Itchiness and redness varies with exposure.

Sensitization
Not expected to cause skin or respiratory sensitization.

Aspiration Hazard
If swallowed can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death. If swallowed, do NOT induce vomiting.

Chronic Exposure
Target Organ Effects
No data available to indicate product or components at greater than 1% are chronic health hazards.

Carcinogenicity
This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

Mutagenicity
No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

Reproductive Toxicity
No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

Teratogenicity
No data available to indicate product or any components contained at greater than .1% may cause birth defects.

Analysis – LD50 / LC50

<table>
<thead>
<tr>
<th></th>
<th>Concentration/Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation LC50 Rat</td>
<td>24 mg/L</td>
</tr>
<tr>
<td>Oral LD50 Rat</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>Dermal LD50 Rabbit</td>
<td>&gt;2000 mg/kg</td>
</tr>
</tbody>
</table>

12. Ecological Information

Component Analysis- Ecotoxicity – Aquatic Life

<table>
<thead>
<tr>
<th>Duration/Test/Species</th>
<th>Concentration/Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LL50; WAF</td>
<td>18-25 mg/L</td>
</tr>
<tr>
<td>Aquatic Vertebrates</td>
<td></td>
</tr>
<tr>
<td>7 Day EL50; WAF</td>
<td>1.4-21 mg/L</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td></td>
</tr>
</tbody>
</table>

Persistence & Degradability
Readily degraded

Bioaccumulation Potential
Not Available

Soil Mobility
Not Available

Other Adverse Effects
Not Available
13. Disposal Considerations

Disposal Instructions
The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. Transportation Information

<table>
<thead>
<tr>
<th>Emergency Response Guide No.</th>
<th>UN Number</th>
<th>Shipping Name (technical name)</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Placards/Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT Bulk</td>
<td>1268</td>
<td>Petroleum Distillate N.O.S (light distillate)</td>
<td>combustible liquid</td>
<td>III</td>
<td><img src="1268.png" alt="Placard" /></td>
</tr>
<tr>
<td>U.S. DOT Non-Bulk</td>
<td></td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA</td>
<td>1268</td>
<td>Petroleum Distillates, N.O.S. (light distillate)</td>
<td>3</td>
<td>III</td>
<td><img src="1268.png" alt="Placard" /></td>
</tr>
<tr>
<td>IMDG</td>
<td>1268</td>
<td>Petroleum Distillates, N.O.S. (light distillate)</td>
<td>3</td>
<td>III</td>
<td><img src="1268.png" alt="Placard" /></td>
</tr>
</tbody>
</table>

15. Regulatory Information

SARA Extremely Hazardous Substances (Sections 302 & 304)
This product does not contain greater than 1% of any “extremely hazardous substances” listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Section 313
This product does not contain greater than 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA Section 311 & 312 Classifications
- **Acute Hazard**: Yes
- **Chronic Hazard**: No
- **Fire Hazard**: No
- **Reactivity Hazard**: No

Issue Date: 5 May 2015
This product does not contain any “hazardous substances” listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

California Prop 65
This product is not routinely tested to determine chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.

Global Chemical Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US TSCA</td>
<td>Present</td>
</tr>
<tr>
<td>EU</td>
<td>Present</td>
</tr>
<tr>
<td>Japan</td>
<td>Not available</td>
</tr>
<tr>
<td>Australia</td>
<td>Present</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Present</td>
</tr>
<tr>
<td>Canada</td>
<td>Present</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Not available</td>
</tr>
<tr>
<td>Korea</td>
<td>Present</td>
</tr>
<tr>
<td>Philippines</td>
<td>Not Available</td>
</tr>
<tr>
<td>China</td>
<td>Present</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Not available</td>
</tr>
</tbody>
</table>

16. Other Information

US NFPA Ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS Ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Physical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision Date 5 May 2015
Revision Reason New SDS

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS