1. Identification

Product Identifier: ULTRA LOW SULFUR DIESEL FUEL # 2 B-20 TO B-40 BIODIESEL BLEND

Synonyms:
- S15 No. 2 ULS Diesel B-20 Dyed; S15 No. 2 ULS Diesel B-20 Clear
- S15 No. 2 ULS Diesel B-40 Dyed; S15 No. 2 ULS Diesel B-40 Clear
- S15 No.2 RoadForceTM Premium ULSD B-20 Dyed
- S15 No.2 RoadForceTM Premium ULSD B-40 Dyed
- S15 No.2 RoadForceTM Premium ULSD B-20 Clear
- S15 No.2 RoadForceTM Premium ULSD B-40 Clear
- S15 No. 2 Premium ULSD B-40 Clear
- Biodiesel (B-20) – Dyed; Diesel Fuel – ULS Dyed B-20 Bio

Chemical Formula: Not applicable to mixtures

Recommended Use of the Chemical and Restrictions On Use: Fuel

Manufacturer / Supplier: Sprague Operating Resources LLC
185 International Drive, Portsmouth, NH 03801

Emergency Phone Number: SPRAGUE: 603-431-1000; CHEMTREC: 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:
- Flammable Liquids - Category 4
- Carcinogenicity - Category 2
- Specific Target Organ Toxicity (Single Exposure) – Category 3
- Aspiration Hazard – Category 1
- Acute Aquatic Toxicity – Category 3

Risk Phrases:
- R40: Limited evidence of a carcinogenic effect.
- R52: Harmful to aquatic organisms.
- R65: Harmful: may cause lung damage if swallowed.
- R67: Vapors may cause drowsiness and dizziness.

Label Elements:

Trade Name: ULTRA LOW SULFUR DIESEL FUEL # 2 B-20 TO B-40 BIODIESEL BLEND

Signal Word: Danger
Hazard Statements:
H227: Combustible liquid.
H304: May be fatal if swallowed and enters airways.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H402: Harmful to aquatic life.

Precautionary Statements:
P261: Avoid breathing dust / fume / gas / mist / vapors / spray.
P281: Wear protective equipment as required.
P301 + 310: IF SWALLOVED: Immediately call a POISON CENTER or doctor / physician.
P331: Do NOT induce vomiting.

3. Composition / Information on Ingredients

CAS Number: Not applicable to mixtures
EC Number: Not applicable to mixtures
Index Number: Not applicable to mixtures
Molecular Weight: Not applicable to mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percent</th>
<th>Hazardous</th>
<th>Chemical Characterization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel, Diesel</td>
<td>68476-34-6</td>
<td>60 - 80%</td>
<td>Yes</td>
<td>Substance</td>
</tr>
<tr>
<td>Dodecanoic acid, methyl ester</td>
<td>111-82-0</td>
<td>1 - 5%</td>
<td>No</td>
<td>Substance</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.1 - 1%</td>
<td>Yes</td>
<td>Substance</td>
</tr>
</tbody>
</table>

4. First-aid Measures

Inhalation: Remove from vapor to fresh air. If breathing has stopped, give artificial respiration. Get medical attention if symptoms appear.

Ingestion: DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. When vomiting occurs, keep person’s head lower than hips to prevent pulmonary aspiration. Consult a physician.

Skin Contact: Remove fuel soaked clothing. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 - 20 minutes.) Get medical attention if symptoms appear.

Eye Contact: Check for and remove any contact lenses. Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention if symptoms occur.

5. Fire-fighting Measures

Fire: Flammable Liquid and Vapor!

Explosion: Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Biodiesel soaked rags or spill absorbents (i.e. oil dry, polypropylene socks, sand, etc.) can cause spontaneous combustion if stored near combustibles and not handled properly.

Fire Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, and Water Fog.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus (SCBA) with full face piece operated in the pressure demand or other positive pressure mode.
6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** 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 as per Section 8.

**Environmental Precautions and Methods and Materials for Containment and Cleaning Up:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air.)

If properly trained, proceed with the following measures:
1. For small spills: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
2. For large spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth) and place in container for disposal according to local regulations (see Section 13.) Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

7. Handling and Storage

**Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:**

Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. 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 retain product residue and can be hazardous. Do not reuse container.

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

**Airborne Exposure Limits:**

For Fuel, Diesel (68476-34-6):
- ACGIH Threshold Limit Value (TWA): 100 mg/m³ (measured as total hydrocarbons) 8 h (skin)

For Naphthalene (08-007-452):
- OSHA Permissible Exposure Limit (TWA): 50 mg/m³ 8 hour(s); 10 ppm 8 hour(s)
- ACGIH Threshold Limit Value (STEL): 79 mg/m³ 15 minute(s) / 15 ppm 15 minute(s)
- ACGIH Threshold Limit Value (TWA): 50 mg/m³ 10 hour(s) / 10 ppm 10 hour(s)
- NIOSH Threshold Limit Value (STEL): 75 mg/m³ 15 minute(s) / 15 ppm 15 minute(s)
- NIOSH Threshold Limit Value (TWA): 50 mg/m³ 10 hour(s) / 10 ppm 10 hour(s)

**Ventilation System:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved): A respirator is not needed under normal and intended conditions of use. If the exposure limit is exceeded and engineering controls are not feasible, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134).

Skin Protection: Gloves - Natural rubber (latex.) Disposable outer garments or impervious garments of equal or greater protection should be worn.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible.

Hygiene Measures: 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Reddish liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Gasoline-like odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>No information found</td>
</tr>
<tr>
<td>% Volatiles by volume @ 21C (70F)</td>
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</tr>
<tr>
<td>Melting Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point / Boiling Range</td>
<td>149 - 366°C (300 - 690°F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>50 - 80°C (122 - 176°F) Closed Cup</td>
</tr>
<tr>
<td>Evaporation Rate (BuAC=1)</td>
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</tr>
<tr>
<td>Flammability</td>
<td>Combustible</td>
</tr>
<tr>
<td>Upper / Lower Flammability or Explosive Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol / water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Reactivity and/or Chemical Stability: Stable under ordinary conditions of use and storage at normal temperatures and pressures.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

Incompatible Materials: Reactive or incompatible with oxidizing materials.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. Toxicological Information

Emergency Overview: WARNING! COMBUSTIBLE. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. HARMFUL IF INGESTED. ASPIRATION HAZARD. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Combustible liquid. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
Potential Health Effects:

**Inhalation:** Mist or vapor may cause respiratory tract irritation. CNS depressant. High levels may cause giddiness, headache, dizziness, nausea, vomiting, and loss of coordination, narcosis, stupor, coma, and unconsciousness.

**Ingestion:** Irritation, giddiness, vertigo, headache, anesthetic stupor, CNS depression, coma and death.

**Skin Contact:** Drying, cracking, and defatting dermatitis. Direct contact may cause extreme irritation with severe erythema and edema with blistering and open sores. Absorption of large amounts may result in narcosis.

**Eye Contact:** Moderately irritating to eyes.

**Chronic Exposure:**

Inhalation: Prolonged exposure may cause dizziness, weakness, weight loss, anemia, nervousness, and pain in the limbs, peripheral numbness, and paresthesia. Renal failure possible. Degenerative changes of liver and kidneys may occur after prolonged exposure to high concentrations.

Skin Contact: Repeated or prolonged exposure may cause irritation, dermatitis, and a rash of pimples and spots.

**Carcinogenicity:**

Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

**Fuel, Diesel:**

ACGIH: A3 - Animal carcinogen. “Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.”

IARC: 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

Naphthalene:

Naphthalene has been evaluated in two year inhalation studies in both rats and mice. The National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC.

**Reproductive Toxicity:** This product is not reported to have any reproductive toxicity effects.

**Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System):** May cause drowsiness or dizziness.

**Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System):** No data available.

**Aspiration Respiratory Organs Hazard:** The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs,) severe lung damage, respiratory failure and even death.

**Acute Toxicity:**

**Fuel, Diesel (68476-34-6):**

- Oral LD50: > 5000 mg/kg (rat)

**Naphthalene (CAS: 91-20-3):**

- Dermal LD50: 2000 mg/kg (rabbit)
- Inhalation LC50: 340 mg/m3 / 1h (rat)
- Oral LD50: 490.0 mg/kg (rat)

**Dodecanoic acid, methyl ester (111-82-0):** No data available

12. Ecological Information

**Ecotoxicity:** Very toxic to aquatic life with long lasting effects.

For Fuel, Diesel: 96 h LC50 Pimephales promelas - 35 mg/L (flow-through)

For Naphthalene: 48 h LC50 Daphnia – 17.4 mg/L / 96h Fish – 2.25mg/L / 48h Crustaceans 2.6 – 2.89 mg/L
Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Other adverse effects: No information available

### 13. Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal should be in accordance with applicable regional, national, state, and local laws and regulations. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### 14. Transport Information

UN Number: UN1202

Packing Group: III

![DOT, IMDG, IATA symbols]

**Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)**

**UN Proper Shipping Name:** COMBUSTIBLE - LIQUID, N.O.S. (FUEL OIL #2)

**Transport Hazard Class(es):** Combustible Liquid

**Packaging Instruction:**
- Passenger aircraft - Quantity limitation: 60 L
- Cargo aircraft - Quantity limitation: 220 L

**Special Provisions:** B1, IB3, T2, TP1

**Maritime Transport IMDG/GGVSea**

**UN Proper Shipping Name:** FLAMMABLE LIQUID, N.O.S. (FUEL OIL #2)

Not regulated if flashpoint is > 60C

**Transport Hazard Class(es):** 3

**Marine Pollutant:** Yes

**Air Transport ICAO-TI and IATA-DGR**

**UN Proper Shipping Name:** FLAMMABLE LIQUID, N.O.S. (FUEL OIL #2)

Not regulated if flashpoint is > 60C

**Transport Hazard Class(es):** 3

**Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Special Precautions for User:** No additional information

### 15. Regulatory Information

**HCS Classification:** Combustible liquid

Irritating material

Carcinogen
U.S. Federal Regulations:

- **TSCA 4(a) final test rules:** Naphthalene
- **TSCA 8(a) PAIR:** Naphthalene
- **United States inventory (TSCA 8b):** All components are listed or exempted.
- **TSCA 12(b) one-time export:** Naphthalene
- **SARA 302/304/311/312 extremely hazardous substances:** No products listed.
- **SARA 302/304 emergency planning and notification:** No products were found.
- **SARA 302/304/311/312 hazardous chemicals:** 9-octadecenoic acid (z) methyl ester, Naphthalene
- **SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**
  - 9-octadecenoic acid (z) methyl ester: Fire hazard / Naphthalene: Fire hazard
  - Immediate (acute) health hazard, Delayed (chronic) health hazard / Fuel, Diesel: Fire hazard, Delayed (chronic) health hazard
- **Clean Water Act (CWA) 307:** Naphthalene; Ethylbenzene
- **Clean Water Act (CWA) 311:** Naphthalene; Ethylbenzene
- **Clean Air Act (CAA) 112 accidental release prevention:** No products were found.
- **Clean Air Act (CAA) 112 regulated flammable substances:** No products listed.
- **Clean Air Act (CAA) 112 regulated toxic substances:** No products were found.

**SARA 313**

Form R – Reporting Requirements and Supplier Notification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>1-5</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State Regulations:**

- **Connecticut Carcinogen Reporting:** None of the components are listed.
- **Connecticut Hazardous Material Survey:** None of the components are listed.
- **Florida substances:** None of the components are listed.
- **Illinois Chemical Safety Act:** None of the components are listed.
- **Illinois Toxic Substances Disclosure to Employee Act:** None listed.
- **Louisiana Reporting:** None of the components are listed.
- **Louisiana Spill:** None of the components are listed.
- **Massachusetts Spill:** None of the components are listed.
- **Massachusetts Substances:** The following components are listed: Emery; Naphthalene
- **Michigan Critical Material:** None of the components are listed.
- **Minnesota Hazardous Substances:** None of the components are listed.
- **New Jersey Hazardous Substances:** The following components are listed:
  - Naphthalene; Diesel Fuel
- **New Jersey Spill:** None of the components are listed.
- **New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- **New York Acutely Hazardous Substances:** The following components are listed:
  - Naphthalene
- **New York Toxic Chemical Release Reporting:** None of the components are listed.
- **Pennsylvania RTK Hazardous Substances:** The following components are listed:
  - Naphthalene
- **Rhode Island Hazardous Substances:** None of the components are listed.

**California Prop. 65**

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Cancer Risk Level</th>
<th>Reproductive Risk Level</th>
<th>No significant Acceptable Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**International Lists:**

This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969.)
16. Other Information

**HMIS / NFPA Hazard Rating:**
- 4=EXTREME
- 3= SERIOUS
- 2= MODERATE
- 1=SLIGHT
- 0=MINIMAL

**Effective Date:** 11/01/13 – Modified Acute Toxicity for Naphthalene; modified aspiration instructions; modified Section 11.

**Previous Revisions:**
- 05/01/13 – Standardized for GHS and REACH
- 12/19/08

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his / her own determination of the suitability of the material for his / her particular purposes.