



24-HOUR EMERGENCY TELEPHONE

SPRAGUE: 603-431-1000

CHEMTREC: 800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: ULTRA LOW SULFUR DIESEL FUEL #1 B20 TO B40 BIODIESEL BLEND

Synonyms:

S15 ULS Kero Dyed – B-20 Bio; S15 ULS Kero Dyed – B-40 Bio
S15 ULS Kero Clear – B-20 Bio; S15 ULS Kero Clear – B-40 Bio
S15 No. 1 ULSD Dyed – B-20 Bio; S15 No. 1 ULSD Dyed – B-40 Bio
S15 No. 1 ULSD Clear – B-20 Bio; S15 No. 1 ULSD Clear – B-40 Bio
S15 No. 1 ULSD B-20 Bio Dyed; S15 No. 1 ULSD B-40 Bio Dyed
S15 No. 1 ULSD B-20 Bio Clear; S15 No. 1 ULSD B-40 Bio Clear

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

Phone: 603-431-1000

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

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Flammable Liquid – Category 3
Acute Toxicity, Oral - Category 4
Acute Toxicity, Inhalation – Category 2
Skin Irritation – Category 2
Eye Irritation – Category 2B
Carcinogenicity - Category 1B
Specific Target Organ Toxicity (Single Exposure) – Category 3
Aspiration Hazard – Category 1
Chronic Aquatic Toxicity – Category 2

Risk Phrases:

R10: Flammable
R26: Toxic by inhalation.
R36: Irritating to eyes.
R38: Irritating to skin.
R45: May cause cancer.
R51: Toxic to aquatic organisms.

Label Elements:

Trade Name: ULTRA LOW SULFUR DIESEL FUEL #1 B20 TO B40 BIODIESEL BLEND

Signal Word: Danger



Hazard Statements:

H226: Flammable liquid and vapor.
 H302: Harmful if swallowed.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H320: Causes eye irritation.
 H330: Fatal if inhaled.
 H336: May cause drowsiness or dizziness.
 H350: May cause cancer.
 H401: Toxic to aquatic life.

Precautionary Statements:

P210: Keep away from heat / sparks / open flames / hot surfaces. No smoking.
 P233: Keep container tightly closed.
 P240: Ground / bond container and receiving equipment.
 P241: Use explosion-proof equipment.
 P242: Use only non-sparking tools.
 P243: Take precautionary measures against static discharge.
 P260: Do not breathe dust / fume / gas / mist / vapors / spray.
 P264: Wash hands thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves / protective clothing / eye protection / face protection.
 P313: Get medical advice / attention.
 P331: Do not induce vomiting.
 P362: Take off contaminated clothing and wash before reuse.
 P391: Collect spillage.
 P403: Store in a well ventilated place.
 P501: Dispose of contents / container to an approved waste disposal plant.

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

Ingredient	CAS Number	Percent	Hazardous	Chemical Characterization
Kerosene (petroleum), hydrodesulfurized	64742-81-0	60 - 100%	Yes	Mixture
Dodecanoic acid, methyl ester	111-82-0	1 - 5%	No	Substance
Naphthalene	91-20-3	1 - 5%	Yes	Substance

4. First-aid Measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion: DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Remove fuel soaked clothing. Immediately flush skin with plenty of water for at least 20 minutes. Get medical attention.

Eye Contact: Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention.

Protection of First Responders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

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.

Fire Extinguishing Media: Use dry chemical, CO₂, water spray (fog) or foam. Do not use water jet.

Special Information: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Runoff to sewer may create fire or explosion hazard. 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. Store biodiesel soaked rags or spill absorbents in approved safety containers and dispose of properly. Oil soaked rags may be washed with soap and water and allowed to dry in well ventilated area.

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. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

For Kerosene (8008-20-6):

ACGIH Threshold Limit Value (TLV): 200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures)

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/3 8 hour(s) / 10 ppm 8 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)

Dodecanoic acid, methyl ester (111-82-0): no occupational exposure limit values.

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

Appearance: Clear liquid

Odor: Kerosene

Odor Threshold: Not determined

pH: No information found

% Volatiles by volume @ 21C (70F): 100

Melting Point: Not determined

Boiling Point / Boiling Range: 171.11 to 298.89C (340 to 570F)

Flash Point: 51.667C (125F) Closed Cup [Pensky-Martens]

Evaporation Rate (BuAC=1): Not determined

Flammability: Flammable Liquid and Vapor! Combustible.

Upper / Lower Flammability or Explosive Limits: Upper – 5.0 / Lower – 0.7

Vapor Pressure (mm Hg): 1 (estimated)

Vapor Density (Air=1): 6 (estimated)

Relative Density: 0.78 – 0.81 g/cm³ (estimated)

Solubility: Insoluble

Partition Coefficient: n-octanol / water: Not determined
Auto-ignition Temperature: Not determined
Decomposition Temperature: Not determined
Viscosity: Kinematic (40C): 0.021 cm²/s (2.1 cSt)

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: May explode or react violently when exposed to oxidizing materials and alkalis.

Hazardous Decomposition Products: The use of hydrocarbon fuels in an area without adequate ventilation may result in hazardous levels of combustion products (e.g., oxides of carbon, sulfur and nitrogen, and other hydrocarbons) and/or dangerously low oxygen levels. Combustion can yield carbon, nitrogen and sulfur oxides.

11. Toxicological Information

Emergency Overview: WARNING! COMBUSTIBLE. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Combustible liquid. May be harmful if swallowed. Irritating to eyes, respiratory system, and skin. 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 that can cause target organ damage. 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: Central nervous system depressant. May cause headaches and irritation to the nose, throat, and lungs.

Ingestion: May cause irritation and burning of the gastrointestinal tract (mouth, throat, and stomach.) May cause nausea, vomiting, diarrhea, and restlessness.

Skin Contact: May cause irritation, drying, and cracking of the skin. May cause dermatitis.

Eye Contact: Adverse symptoms may include the following: pain or irritation, watering, redness.

Chronic Exposure: The most common health effect associated with chronic kerosene exposure is dermatitis.

Aggravation of Pre-existing Conditions: Pre-existing disorders involving any target organs mentioned in this SDS as being at risk may be aggravated by over-exposure to this product.

Carcinogenicity: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Application of hydrodesulfurized kerosene to mouse skin, twice a week for 12 months, resulted in an increased incidence of skin tumors. It has not been identified as a carcinogen by NTP, IARC or OSHA. 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: Hydrodesulfurized kerosene applied to the skin of female rats at 494, 330, or 165 mg/kg daily for 7 consecutive weeks (pre-mating, mating, and gestation), or for 8 consecutive weeks in males did not result in systemic, reproductive, or developmental toxicity.

Target Organs: Contains material which causes damage to the following organs: blood, kidneys, liver, skin, central nervous system (CNS,) eye, lens or cornea.

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

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

Acute Toxicity:

Hydrodesulfurized Kerosene (CAS: 64742-81-0):

Dermal LD50: 2000 mg/kg (rabbit)

Inhalation LC50: 5.2 mg/L / 4h (rat)

Oral LD50: > 5000 m/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: The American Petroleum Institute (API) * concludes that adequate data regarding the ecotoxicity of kerosenes and jet fuels are available to demonstrate moderate acute toxicity to aquatic organisms.

Persistence and Degradability: According to API *, generally, kerosene/jet fuel components biodegrade significantly under aerobic conditions provided sufficient nutrients are present for conversion of the hydrocarbons to microbial biomass.

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Other adverse effects: No information available

* Kerosene / Jet Fuel Category Assessment Document submitted to the US EPA: September 21, 2010

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: UN1223

UN Proper Shipping Name: KEROSENE

Packing Group: III



DOT

IMDG

IATA

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

Transport Hazard Class(es): 3

Maritime Transport IMDG/GGVSea
Transport Hazard Class(es): 3
Marine Pollutant: Yes

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): 3

Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code:) Not applicable

Special Precautions for User: No additional information

15. Regulatory Information

HCS Classification: Combustible liquid
Irritating material
Carcinogen
Target organ effects

U.S. Federal Regulations: **TSCA 4(a) final test rules:** Naphthalene; n-Hexane
TSCA 8(a) PAIR: Naphthalene
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 12(b) one-time export: Naphthalene
TSCA 12(b) annual export notification: n-Hexane
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
Clean Water Act (CWA) 307: Naphthalene; Toluene; Ethylbenzene; Benzene
Clean Water Act (CWA) 311: Naphthalene; Xylene; Toluene; Ethylbenzene; Benzene
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

Product Name	CAS Number	Concentration
Naphthalene	91-20-3	1-5

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; Xylene

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; Xylene

New York Toxic Chemical Release Reporting: None of the components are listed.

Pennsylvania RTK Hazardous Substances: The following components are listed:
Naphthalene; Xylene

Rhode Island Hazardous Substances: None of the components are listed.

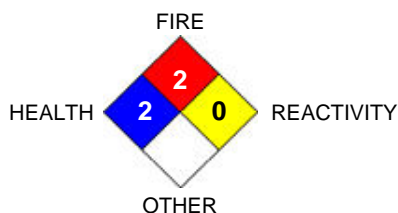
California Prop. 65	Cancer	Reproductive	No significant Risk Level	Maximum Acceptable Dosage Level
Ingredient Name				
Naphthalene	Yes	No	Yes	No
Ethylbenzene	Yes	No	No	No
Toluene	No	Yes	No	7000 µg/day (ingestion) 13000 µg/day (inhalation)
Benzene	Yes	Yes	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)

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

Previous Revisions:

05/01/13 – Standardized for GHS and REACH

12/19/08

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