

# Safety Data Sheet

EnDura Fuels. UltraClean Blend



Renewable Energy Group

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### REG RDB50

**Product Use:** Blendstock, Cleaner, Fuel, Solvent

**Synonyms:** BioSynfining™ Diesel; B50/R50; Bio-Derived Diesel; Biodiesel/renewable diesel blend; Biomass-Based Diesel; Diesel Fuel No. 2; Dynamic Fuels™ Renewable Diesel Fuel; R98.9 Diesel Fuel; Renewable Synthetic Diesel Fuel; SDS 405; Ultra Clean Blend™

#### Company Identification

REG Marketing & Logistics Group, LLC  
416 South Bell Avenue  
Ames, IA 50010  
United States of America

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : REG-SDSDistribution@chevron.com  
Product Information: Phone: 1 888.734.8686

## SECTION 2 HAZARDS IDENTIFICATION

#### CLASSIFICATION:

- Flammable liquid: Category 4.
- Aspiration toxicant: Category 1.
- Carcinogen: Category 2.
- Target organ toxicant (repeated exposure): Category 2.



**Signal Word:** Danger

#### Physical Hazards:

- Combustible liquid.

#### Health Hazards:

- May be fatal if swallowed and enters airways.
- Suspected of causing cancer.
- May cause damage to organs (Blood/Blood Forming Organs, Liver, Thymus) through prolonged or repeated exposure.

#### PRECAUTIONARY STATEMENTS:

**General:**

- Keep out of reach of children.
- Read label before use.

**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.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.

**Response:**

- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- IF exposed or concerned: Get medical advice/attention.
- Do NOT induce vomiting.
- In case of fire: Use media specified in the SDS to extinguish.

**Storage:**

- Store in a well-ventilated place. Keep cool.
- Store locked up.

**Disposal:**

- Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NUMBER	AMOUNT
Fatty acids, C14-18 and C16-18-unsatd., Methyl esters	67762-26-9	20 - 80 %weight
Fuels, diesel, C9-18 alkane branched and linear	1159170-26-9	20 - 80 %weight
Fuel Oil, No. 2	68476-30-2	< 2 %weight

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation:** Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

**Most important symptoms and effects, both acute and delayed****IMMEDIATE HEALTH EFFECTS**

**Eye:** Contact with the eyes may cause irritation. Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin may cause irritation. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed

through the skin.

**Ingestion:** Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.

**Inhalation:** Not expected to be harmful if inhaled. If this material is heated, fumes may be unpleasant and produce nausea and irritation of the eye and upper respiratory tract.

#### **DELAYED OR OTHER HEALTH EFFECTS:**

**Target Organs:** Contains material that may cause damage to the following organ(s) following repeated exposure based on animal data: Liver Blood/Blood Forming Organs Thymus See Section 11 for additional information. Risk depends on duration and level of exposure.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to Physicians:** Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

### **SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames. Do not use water spray or a direct stream of water.

**Unusual Fire Hazards:** See Section 7 for proper handling and storage.

#### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Hydrocarbons, Nitrogen.

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

### **SECTION 7 HANDLING AND STORAGE**

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Precautionary Measures:** Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot

lights, welding equipment, and electrical motors and switches.

Do not get in eyes, on skin, or on clothing. Do not breathe vapor or fumes from heated material. Do not taste or swallow. Wash thoroughly after handling. Keep out of the reach of children.

**Unusual Handling Hazards:** Materials saturated with this product, such as oily rags, used oil dri, soaked insulation pads, etc., may spontaneously combust due to product decomposition in the presence of oxygen. Place all such materials into appropriate oily waste containers (such as metal cans with metal lids or oily waste dumpsters with lids), and dispose of according to local, state, and federal regulations

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

**General Storage Information:** DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

### ENGINEERING CONTROLS:

Use general ventilation, local exhaust ventilation, or a combination of both.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

**Skin Protection:** Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. **Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced.** Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

Chemical Glove Material	Thickness (mm)	Typical Breakthrough Time (minutes)
Nitrile	0.5	5
Nitrile	0.11	5
Viton Butyl	0.3	240

Butyl	<b>Not recommended for use</b>
Neoprene	<b>Not recommended for use</b>
Polyvinyl Chloride (PVC)	<b>Not recommended for use</b>

**Respiratory Protection:** No respiratory protection is normally required.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	Form	TWA	STEL	Ceiling	Notation
Fuel Oil, No. 2	ACGIH	Inhalable fraction and vapor	100 mg/m <sup>3</sup>	--	--	Skin total hydrocarbon
Fuel Oil, No. 2	ACGIH	Vapor and aerosol	100 mg/m <sup>3</sup>	--	--	Skin total hydrocarbon
Fuel Oil, No. 2	CVX	Vapor and aerosol	100 mg/m <sup>3</sup>	--	--	--

Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Clear to Amber or Green

**Physical State:** Liquid

**Odor:** Odorless

**Odor Threshold:** No data available

**pH:** No data available

**Vapor Pressure:** <0.3 mmHg @ 20 °C (68 °F)

**Relative Vapor Density:** >1

**Initial Boiling Point:** 150°C (302°F) - 360°C (680°F)

**Solubility:** Insoluble

**Freezing Point:** No data available

**Melting Point:** No data available

**Specific Gravity:** 0.77 g/ml - 0.90 g/ml @ 15°C (59°F)

**Particle Characteristics:** Not applicable

**Density:** No data available

**Kinematic Viscosity:** 1.9 cSt - 4.5 cSt @ 40°C (104°F)

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Partition coefficient n-octanol/water (logarithmic value):** No data available

**FLAMMABLE PROPERTIES:**

**Flammability (solid, gas):** No Data Available

**Flashpoint:** > 60 °C (> 140 °F)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: 0.6 Upper: 4.7

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Do not store near sources of ignition. Do not heat above flash point. Avoid contact with mineral acid/alkali.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (Elevated temperatures)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The material is not considered an eye irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Corrosion/Irritation:** The material is not considered a skin irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The material is not considered a skin sensitizer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The material is not considered a dermal toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The material is not considered an oral toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The material is not considered an inhalation toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The material is not considered a mutagen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Carcinogenicity:** This material is suspected of causing cancer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Reproductive Toxicity:** The material is not considered a reproductive toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Single Exposure:** The material is not considered a target organ toxicant (single exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Repeated Exposure:** This material may cause damage to organs through prolonged or repeated exposure. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Aspiration Hazard:** This material is considered an aspiration hazard based on the kinematic viscosity of the material.

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.  
Partition coefficient n-octanol/water (logarithmic value): No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NA1993, DIESEL FUEL, 3, III

(International: UN1202, DIESEL FUEL, 3, III)

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**

Not applicable

## SECTION 15 REGULATORY INFORMATION

### EPCRA 311/312 CATEGORIES:

Aspiration Hazard  
Carcinogenicity  
Flammable (gases, aerosols, liquids, or solids)  
Specific target organ toxicity (single or repeated exposure)





The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.