

Material Safety Data Sheet**1. MATERIAL AND COMPANY IDENTIFICATION**

Material Name : Biodiesel / Renewable Diesel
Uses : Diesel fuel

Manufacturer/Supplier : Motiva Enterprises LLC
 PO BOX 4540
 Houston, TX 77210-4540
 USA

SDS Request : 877-276-7285

Emergency Telephone Number

Spill Information : 877-242-7400

Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS No.	Concentration
Biodiesel	67762-38-3	0.00 - 100.00 %
Fuels, Diesel, C9-C18 alkane branched and linear	1159170-26-9	0.00 - 100.00 %

Dyes and markers can be used to indicate tax status and prevent fraud.
 Contains organic sulfur compounds.

3. HAZARDS IDENTIFICATION

Emergency Overview	
Appearance and Odour	: Colourless to yellowish. Liquid. Mild.
Health Hazards	: Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.
Environmental Hazards	: Not classified as dangerous for the environment.

Health Hazards**Inhalation**

: Slightly irritating to respiratory system. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache and nausea.

Skin Contact

: Repeated exposure may cause skin dryness or cracking.

Eye Contact

: May cause slight irritation to eyes.

Ingestion

: Harmful: may cause lung damage if swallowed. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Signs and Symptoms

: Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.

If material enters lungs, signs and symptoms may include

Material Safety Data Sheet

- Aggravated Medical Conditions** : coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure.
- : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.
- Environmental Hazards** : Not classified as dangerous for the environment.

4. FIRST-AID MEASURES

- Inhalation** : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.
- Advice to Physician** : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

- Flash point** : > 38 °C / 100 °F (Pensky-Martens Closed Cup)
- Specific Hazards** : The vapour is heavier than air, spreads along the ground and distant ignition is possible. Treat as oil fire.
- Suitable Extinguishing Media** : Dry chemical, foam, carbon dioxide, water spray (fog).
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Wear full protective clothing and self-contained breathing apparatus.
- Additional Advice** : Keep adjacent containers cool by spraying with water. Oil soaked rags can cause spontaneous combustion if not handled properly. Before disposal, wash rags with soap and water and dry in well ventilated area.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on

Material Safety Data Sheet

disposal. Observe the relevant local and international regulations. Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly.

- Protective measures** : Do not breathe fumes, vapour. Do not operate electrical equipment. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Remove all possible sources of ignition in the surrounding area. Shut off leaks, if possible without personal risks. This material will float on water.
- Clean Up Methods** : For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations. Wash hard surfaces with safety solvent or detergent to remove remaining oil film. Greasy nature will result in a slippery surface.
- Additional Advice** : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802. Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802.

7. HANDLING AND STORAGE

- General Precautions** : Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Prevent spillages.

Material Safety Data Sheet

- Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Never siphon by mouth. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse. For comprehensive advice on handling, product transfer, storage and tank cleaning refer to the product supplier.
- Handling** : When using do not eat or drink. When using do not smoke. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
- Storage** : Drum and small container storage: Drums should be stacked to a maximum of 3 high. Keep container tightly closed. Must be stored in a well-ventilated area, away from sunlight, ignition sources and other sources of heat. Use properly labelled and closeable containers. Store in closed containers between 50°F and 120°F.
Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Do not store or use near heat, spark, or flame, store out of sun.
- Product Transfer** : Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling. Do not pressurize drum containers to empty.
- Container Advice** : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers. Drum is not a pressure vessel; never use pressure to empty.
- Additional Information** : Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Contains no components with occupational exposure limit values.

Biological Exposure Index (BEI)

Material Safety Data Sheet

- Exposure Controls** : The level of personal protection and types of controls necessary will vary depending upon potential exposure conditions. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
Eye washes and showers for emergency use.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. All respiratory protection equipment and use must be in accordance with local regulations.
Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.
- Hand Protection** : Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: PVC.
- Eye Protection** : Chemical splash goggles (chemical monogoggles).
- Monitoring Methods** : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
- Environmental Exposure Controls** : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Colourless to yellowish. Liquid.
- Odour : Mild.

Material Safety Data Sheet

Initial Boiling Point and Boiling Range : 179 °C / 354 °F
 Flash point : > 38 °C / 100 °F (Pensky-Martens Closed Cup)
 Vapour pressure : < 2 hPa
 Specific gravity : < 1
 Density : 860 - 900 kg/m3 at 15 °C / 59 °F
 Water solubility : Insoluble.
 Kinematic viscosity : < 5 mm2/s at 40 °C / 104 °F
 Vapour density (air=1) : > 1
 Evaporation rate (nBuAc=1) : < 1

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions of use.
Materials to Avoid : Strong oxidising agents.
Hazardous Decomposition Products : Combustion produces carbon monoxide, carbon dioxide along with thick smoke.
Hazardous Polymerisation : No

11. TOXICOLOGICAL INFORMATION

Basis for Assessment : Information given is based on product data, a knowledge of the components and the toxicology of similar products.
Acute Oral Toxicity : Low toxicity: LD50 >2000 mg/kg , Rat
 Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity : Low toxicity: LD50 >2000 mg/kg , Rabbit
Acute Inhalation Toxicity : Low toxicity by inhalation. LC50 >20 mg/l / 4.0 h, Rat
 High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Irritation : Expected to be slightly irritating.
Eye Irritation : Expected to be slightly irritating.
Respiratory Irritation : Inhalation of vapours or mists may cause irritation to the respiratory system.
Sensitisation : Not a skin sensitiser.
Repeated Dose Toxicity : Data not available
Mutagenicity : No evidence of mutagenic activity.
Carcinogenicity : Data not available

Biodiesel	: GHS / CLP: No carcinogenicity classification
-----------	--

Reproductive and Developmental Toxicity : Data not available

Material Safety Data Sheet

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

- Acute Toxicity** : Practically non toxic: LL/EL/IL50 > 100 mg/l LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract.
- Mobility** : Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile. Large volumes may penetrate soil and could contaminate groundwater.
- Persistence/degradability** : Expected to be readily biodegradable.
- Bioaccumulation** : Contains constituents with the potential to bioaccumulate.
- Other Adverse Effects** : Films formed on water may affect oxygen transfer and damage organisms.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.
- Container Disposal** : Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be in compliance.

14. TRANSPORT INFORMATION**US Department of Transportation Classification (49CFR)**

Identification number	UN 1202
Proper shipping name	Diesel fuel
Class / Division	3

Material Safety Data Sheet

Packing group III

IMDG

Identification number UN 1202
Proper shipping name DIESEL FUEL
Class / Division 3
Packing group III
Marine Pollutant: Yes

IATA (Country variations may apply)

Identification number UN 1202
Proper shipping name Diesel fuel
Class / Division 3
Packing group III

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status

TSCA All components listed.

Additional Information : IARC has classified diesel exhaust emissions as a Class 1 carcinogen - carcinogenic to humans. Steps should be taken to prevent personal exposure to diesel exhaust emissions.

OSHA Hazard classification

No OSHA Hazards.

State Regulatory Status

Material Safety Data Sheet

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

- SDS Version Number** : 2.3
- SDS Effective Date** : 07/22/2013
- SDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- SDS Regulation** : The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- SDS Distribution** : The information in this document should be made available to all who may handle the product.
- Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.