


## Section 1 – Identification

|                               |                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product identifier            | Biodiesel (B99.9)                                                                                                                                                                                      |
| Other means of identification |                                                                                                                                                                                                        |
| Synonyms                      | Biodiesel, fatty acid methyl esters, B100, B99, B99.9, FAME                                                                                                                                            |
| Recommended use               | Fuel, solvent, cleaning agent, heating oil, blend stock                                                                                                                                                |
| Restrictions on use           | Not intended for direct human consumption                                                                                                                                                              |
| Supplier information          | REG Marketing & Logistics Group, LLC<br>416 S. Bell Ave<br>Ames, IA 50010<br>(888) 734-8686                                                                                                            |
| Emergency phone number        | <b>For Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, Fire, Exposure, or Accident<br/>Call CHEMTREC Day or Night:<br/>Domestic: 1-800-424-9300<br/>International: +1 703-741-5970</b> |

## Section 2 – Hazard(s) Identification

### Classification (in accordance with 29 CFR 1910.1200)

| Hazard Class    | Hazard Category | Route of Exposure |
|-----------------|-----------------|-------------------|
| Skin Irritation | Category 2      | Absorption        |
| Eye Irritation  | Category 2B     | Absorption        |
| Carcinogenicity | Category 2      | Contact           |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal word              | <b>WARNING</b>                                                                                                                                                                                                                                                                                                                                                                                             |
| Pictograms               |                                                                                                                                                                                                                                                                                                                         |
| Hazard Statements        | H315 Causes skin irritation<br>H320 Causes eye irritation<br>H351 Suspected of causing cancer                                                                                                                                                                                                                                                                                                              |
| Precautionary statements |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Prevention               | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling.                                                                                                                                                                         |
| Response                 | If exposed or concerned: Get medical advice/attention. If on skin, wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Storage                  | Store locked up.                                                                                                                                                                                                                                                                                                                                                                                           |



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Disposal

Dispose of contents/container in accordance with local, state, and federal regulations.

Hazards not otherwise specified

None identified

## Section 3 – Composition / Information on Ingredients

| Chemical Name                                     | Common Name & Synonyms              | CAS number | % of product |
|---------------------------------------------------|-------------------------------------|------------|--------------|
| Fatty acids, C14-18 and C16-18-unsatd., Me esters | Biodiesel, Fatty Acid Methyl Esters | 67762-26-9 | 99-100%      |
| Petroleum Fuel Oil                                | Diesel Fuel                         | 68476-30-2 | <1%          |

## Section 4 – First-Aid Measures

First-aid measures for exposure

Inhalation

Move to fresh air. If feeling unwell, seek medical attention.

Skin

If on skin, wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Eyes

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth out with water. If feeling unwell, seek medical attention.

Most important symptoms / effects

Acute

Causes skin irritation. Causes eye irritation.

Delayed / Chronic

Suspected of causing cancer.

Indication of immediate medical attention

Treat symptomatically and supportively.

Special treatment needed, if necessary

No special treatment identified.

## Section 5 – Fire-Fighting Measures

Suitable extinguishing media

Water mist, firefighting foam, dry chemical, carbon dioxide, or clean extinguishing agents (such as Halon or Halotron)

Unsuitable extinguishing media

Do not use a solid water stream, as it may scatter and spread the fire

Specific hazards arising from the chemical

May burn if heated, but does not readily ignite.

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



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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.

Hazardous combustion products include

Carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons

Protective equipment and precautions for firefighters

Incipient stage fires may be controlled with a portable fire extinguisher. For fires beyond the incipient stage, evacuate all unnecessary personnel. Emergency responders in the immediate area should wear standard firefighting protective equipment, including self-contained breathing apparatus (SCBA) and full bunker gear. In case of external fires in proximity to storage containers, use water spray to keep containers cool, if it can be done safely. Prevent runoff from entering streams, sewers, storm drains, or drinking water supply.

## Section 6 – Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Keep all sources of ignition away from spill. Wear protective garments, impervious oil resistant boots, protective chemical-resistant gloves, and safety glasses. If product has been heated, wear appropriate thermal and chemical protective equipment. If splash is a risk, wear splash resistant goggles and face shield. Shut off source of spill, if safe to do so. Contain spill to the smallest area possible. Isolate immediate hazard area and remove all nonessential personnel. Prevent spilled product from entering streams, sewers, storm drains, unauthorized treatment drainage systems, and natural waterways. Place dikes far ahead of the spill for later recovery and disposal. Immediate cleanup of any spill is recommended. **If material spills into or upon any navigable waters and causes a film or sheen on the surface of the water, immediately notify the National Response Center at 1-800-424-8802.**

Methods for containment and clean-up

Small spill / incidental release

Small spills can be cleaned up with a properly rated vacuum system, absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.

Large spill / release

A spill remediation contractor with oil booms and skimmers may be needed for larger spills or spills that come into contact with a waterway or sensitive wetland. Recover as much product as possible by pumping it into totes or similar intermediate containers. Remove any remaining product with a properly rated vacuum system, absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.

Other information

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.

## Section 7 – Handling and Storage

Precautions for safe handling

When transferring product, use pipes, hoses, and tanks that are electrically bonded and grounded to prevent the accumulation of static electricity.



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Conditions for safe storage, including incompatibilities

Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases. Store the product in a cool dry place, in a tightly closed container. Storage tanks should have an appropriate ventilation and pressure relief system.

## Section 8 – Exposure Controls / Personal Protection

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling    | When transferring product, use pipes, hoses, and tanks that are electrically bonded and grounded to prevent the accumulation of static electricity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Component exposure limits        | At this time, the constituents have no known exposure limits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Appropriate engineering controls | Keep product enclosed in primary containment (hoses, pipes, tanks, etc.) to avoid contact with skin. Handle in accordance with good industrial hygiene and safety practices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Individual Protection Measures   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Personal protective equipment    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Eyes / face                      | Wear safety glasses. If splash potential exists, use splash resistant goggles and a face shield.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Skin                             | Wear disposable nitrile or other similar chemical-resistant gloves for incidental contact. For more substantial contact, wear thicker nitrile or other similar chemical-resistant gloves. Wear protective garments, such as a chemical apron, chemical resistant coveralls, or chemical resistant coat and pants, along with impervious oil-resistant boots. Remove soaked protective equipment, decontaminate with soapy water, and rinse thoroughly before reuse. <b>Note:</b> product will cause natural rubbers to degrade at a very rapid rate. Such protective equipment will need to be carefully inspected after decontamination to see if it is still in serviceable condition. Any defective or worn out equipment should be immediately discarded. |
| Respiratory                      | No exposure limits are available, but appropriate organic vapor or supplied air respiratory protection may be worn if irritation or discomfort is experienced. Respiratory protection must be provided and used in accordance with all local, state, and federal regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Section 9 – Physical and Chemical Properties

|                                     |                                 |                                                  |                                               |
|-------------------------------------|---------------------------------|--------------------------------------------------|-----------------------------------------------|
| <b>Appearance - Physical State:</b> | Liquid                          | <b>Appearance - Color:</b>                       | Water white to pale yellow to brown if undyed |
| <b>Odor:</b>                        | Mild oily or animal fat odor    | <b>Odor Threshold:</b>                           | <i>No information available</i>               |
| <b>pH:</b>                          | Not applicable                  | <b>Melting/Freezing Point:</b>                   | -1°C to 20°C / 30°F to 68°F                   |
| <b>Boiling Point/Range:</b>         | >280°C / 536°F (at 1 atm)       | <b>Flash Point:</b>                              | >93°C / >200°F (ASTM D93)                     |
| <b>Evaporation Rate:</b>            | <i>No information available</i> | <b>Flammability (solid/gas):</b>                 | <i>No information available</i>               |
| <b>LFL:</b>                         | <i>No information available</i> | <b>UFL:</b>                                      | <i>No information available</i>               |
| <b>Vapor Pressure:</b>              | <i>No information available</i> | <b>Vapor Density:</b>                            | <i>No information available</i>               |
| <b>Relative Density:</b>            | 0.87-0.89 @ 25°C                | <b>VOC:</b>                                      | <i>No information available</i>               |
| <b>Solubility (H<sub>2</sub>O):</b> | Negligible                      | <b>Solubility (other):</b>                       | <i>No information available</i>               |
| <b>Auto Ignition Temp.:</b>         | <i>No information available</i> | <b>Decomposition Temp.:</b>                      | <i>No information available</i>               |
| <b>Viscosity @ 40°C:</b>            | 3.8-5.0 cSt                     | <b>Partition coefficient (n-octanol/water) :</b> | <i>No information available</i>               |



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## Section 10 – Stability and Reactivity

|                                    |                                                                                                                                                                                                                             |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | When handled and stored appropriately, no dangerous reactions are known                                                                                                                                                     |
| Chemical stability                 | Stable in closed containers at room temperature under normal storage and handling conditions                                                                                                                                |
| Possibility of hazardous reactions | When handled and stored appropriately, no dangerous reactions are known<br><br>See Sections 5 and 6 regarding spontaneous combustion of product-saturated absorbent materials.                                              |
| Conditions to avoid                | Ignition sources, accumulation of static electricity, heating product to its flash point, or allowing the product to cool below its melting point (otherwise it may solidify and not be transferable until it is reheated). |
| Incompatible materials             | Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases.                                                                                                                             |
| Hazardous decomposition products   | Carbon oxides, hydrogen sulfide, nitrogen oxides, and hydrocarbons                                                                                                                                                          |

## Section 11 – Toxicological Information

|                                              |                                                                                                                                                                                      |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Likely routes of exposure                    | Absorption, ingestion, and inhalation                                                                                                                                                |
| Symptoms                                     |                                                                                                                                                                                      |
| Inhalation                                   | Coughing or irritation                                                                                                                                                               |
| Ingestion                                    | Nausea, vomiting, or feeling unwell                                                                                                                                                  |
| Skin contact                                 | Redness or irritation                                                                                                                                                                |
| Eye contact                                  | Redness or irritation and tearing                                                                                                                                                    |
| Acute toxicity                               |                                                                                                                                                                                      |
| Oral                                         | LD50 >17,500mg/kg (rat) estimated                                                                                                                                                    |
| Dermal                                       | LC50 >2000mg/kg (rat)                                                                                                                                                                |
| Inhalation                                   | No information available                                                                                                                                                             |
| Skin corrosion / irritation                  | (rat) after 24 hr exposure, some irritation which subsided within 12 – 14 days<br>(human) after 24 hr exposure, some minor irritation (less than that of a 4% soap & water solution) |
| Serious eye damage / eye irritation          | Industrial experience has shown that product in the eyes can cause redness and irritation which subsides within 7 days.                                                              |
| Sensitization ( <i>Respiratory or Skin</i> ) | <i>No information available</i>                                                                                                                                                      |
| Germ cell mutagenicity                       | <i>No information available</i>                                                                                                                                                      |
| Carcinogenicity                              | This product is not listed as a carcinogen by IARC, NTP, or OSHA                                                                                                                     |
| Component carcinogenicity                    | ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans                                                                                                         |



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Fuels, Diesel (0.1% by vol.) GHS / CLP: Carcinogenicity Category 2

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Reproductive / developmental toxicity | <i>No information available</i> |
| Specific target organ toxicity        |                                 |
| Single exposure                       | <i>No information available</i> |
| Repeated exposure                     | <i>No information available</i> |
| Aspiration hazard                     | <i>No information available</i> |

## Section 12 – Ecological Information

### Acute ecotoxicity - short-term exposure

|                                   |                                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------|
| Fish                              | 48hr LC50 (rainbow trout) 2.8-4.6 ug/L<br>96hr LC50 (bluegill) >1000mg/L                        |
| Invertebrates                     | LC-50 (Daphnia Manga) 23 ppm                                                                    |
| Long Term Exposure (Fish & algae) | NOEL >100mg/L (fish, invertebrate, and algae)                                                   |
| Persistence and degradability     | Product is biodegradable in aerobic conditions (90% biodegraded within 23 days)                 |
| Bioaccumulative potential         | There is a potential for bioaccumulation of this product                                        |
| Mobility in soil                  | <i>No information available</i>                                                                 |
| Other adverse effects             | See section 5 & 6 regarding spontaneous combustion of materials that are soaked in this product |

## Section 13 – Disposal Considerations

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disposal ( <i>waste / unwanted product</i> ) | This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate local, state, regional, or federal regulations for additional requirements. |
| Disposal ( <i>containers with residue</i> )  | Dispose of all containers with residue according to local, state, regional, and federal regulations.                                                                                                                                                                                                                                                                                                                                           |





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## U.S. State Regulations

### California Proposition 65:

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations:

|                     |  |                                                                                                        |
|---------------------|--|--------------------------------------------------------------------------------------------------------|
| <b>New Jersey</b>   |  | US New Jersey Worker and Community Right-to-know Act<br>(New Jersey Statute Annotated Section 34:5A-5) |
| <i>Component</i>    |  | <i>CAS Number</i>                                                                                      |
| Fuels, diesel, No 2 |  | 68476-34-8                                                                                             |
| <b>Pennsylvania</b> |  | US Pennsylvania Worker and Community Right-to-know Law<br>(34 PA. Code Chap. 301-323)                  |
| <i>Component</i>    |  | <i>CAS Number</i>                                                                                      |
| Fuels, diesel, No 2 |  | 68476-34-8                                                                                             |

## Section 16 – Other Information

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Revision Date: March 9, 2020

Version #: 20200309

| NFPA 704 Ratings |   |
|------------------|---|
| Health Hazard:   | 1 |
| Flammability:    | 1 |
| Instability:     | 0 |
| Other:           | - |

Revision Note: Modified the CAS number for methyl esters in Section 3.

WARNING: POTENTIALLY HAZARDOUS MATERIAL. IMPROPER USE OR MISHANDLING CAN RESULT IN SERIOUS INJURY OR DEATH. THIS PRODUCT CONTAINS SUBSTANCES WHICH, IF MODIFIED, MAY BE FLAMABLE AND MAY BURN OR EXPLODE IF HEATED OR EXPOSED TO FLAME OR OTHER IGNITION SOURCE OR WATER, OXIDIZING AGENTS, ACIDS OR OTHER CHEMICALS. AVOID INGESTION, INHALATION AND CONTACT WITH SKIN AND EYES.

### Disclaimer

The information provided on this SDS 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**