

SAFETY DATA SHEET

Biofuel, B99/B100

1. IDENTIFICATION

Product Identifier	Biofuel
Synonyms:	B99, B100, B99 Biodiesel, B100 Biodiesel, Fatty Acid Methyl Esters, Soy Biodiesel, Canola Biodiesel, Tallow Biodiesel, Rapeseed Biodiesel, Soy Methyl Ester, Canola Methyl Ester, Tallow Methyl Ester, Rapeseed Methyl Ester
Intended use of the product:	Fuel, Blend Stock
Contact:	Gulf Oil Limited Partnership (PikeFuels) 80 William Street Suite 400 Wellesley Hills, MA 02481 Productinfo@pikefuels.com (Non-emergency): 339-933-7200
Emergency Contact:	EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300

2. HAZARD IDENTIFICATION

Applicable Hazard Classifications and Hazard Statements (GHS-US):

Flammable Liquid	Category 3	H226 – Flammable liquid and vapor
Aspiration Hazard	Category 1	H304- May be fatal if swallowed and enters airways
Skin Corrosion/Irritation	Category 2	H315 - Causes skin irritation
Acute Toxicity, Inhalation	Category 4	H332- Harmful if inhaled
Carcinogenicity	Category 2	H351 - Suspected of causing cancer
STOT RE	Category 2	H373 – Causes damage to organs through prolonged or repeated exposure
Long-term Aquatic Hazard	Category 2	H411-Toxic to aquatic life with long lasting effects
Hazard Not Otherwise Classified		Static accumulating flammable liquid

Labeling Elements



Signal Word (GHS-US): **Danger**

Precautionary Statements (GHS-US)

- P201 - Obtain special instructions before use.
- P202 – Do not handle until all safety precautions have been read and understood.
- 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 electrical/ventilating/lighting equipment pursuant to applicable electrical code.
- P242 – Use only non-sparking tools.
- P243 – Take precautionary measures against static discharge.
- P261 – Avoid breathing fume/gas/mist/vapors/spray.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 – Wash thoroughly after handling.
- P271 – Use only outdoors or in a well-ventilated area.
- P273 – Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 - If swallowed: Immediately call a poison center/doctor.
- P302+P352 – IF on skin, wash with plenty of water.

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P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water/shower.
P304+P312 – If inhaled, call a Poison Center/Doctor if you feel unwell.
P304+P340 – If Inhaled: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - If exposed or concerned: get medical attention/advice.
P312 – Call a Poison Center or Doctor if you feel unwell.
P314 – Get medical attention/advice if you feel unwell.
P321 – Specific treatment, see Section 4 – First Aid.
P331 - Do NOT induce vomiting.
P332+P313 – IF Skin irritation occurs: get medical advice/attention.
P362 – Take off contaminated clothing.
P370+P378 – In case of fire use firefighting foam or other appropriate media for Class B fires to extinguish.
P391 – Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulation.

Other information:

NFPA 704

Health: 2 – Can cause temporary incapacitation or residual injury

Fire: 1 – Must be preheated before ignition can occur

Reactivity: 0 - Stable



Under normal conditions, this product is not a gas under pressure, explosive, self-heating, pyrophoric, an oxidizer, an organic peroxide, self-reactive, a combustible dust or corrosive to metal. It does not emit flammable gas in contact with water.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

Name	Product Identifier (CAS#)	Concentration*	Classification
Fatty Acids, C12-18, Methyl Esters	68937-84-8	99 - 100	N/A
Fatty Acids, Canola Oil, Methyl Esters	129828-16-6	99 - 100	N/A
Rapeseed Oil, Methyl Ester	73891-99-3	99 - 100	N/A
Soybean Oil, Methyl Ester	67784-80-9	99 - 100	N/A
Fatty acids, Tallow, Methyl Esters	61788-61-2	99 - 100	N/A
No. 2 Diesel Fuel	68476-34-6	0 - 1	Flam Liq 3, H226; Asp 1, H304; Skin Irrit 2, H315; Acute Tox 4, H332; Carc 2, H351; STOT RE 2, H373; Aquatic Haz 2, H411

*Concentrations are percent by volume. This mixture may contain trace amounts of Benzene, Cumene, Ethylbenzene, N-Hexane, Naphthalene, Toluene and Xylenes as components of No. 2 Diesel Fuel. Each is less than 2% of the diesel component (if present) of the product.

Additional Formulation Information

No. 2 Diesel is a complex mixture of paraffins, cycloparaffins, olefins and aromatic hydrocarbon chain lengths predominantly in the range of eleven to twenty carbons. May contain small amounts of dye and other additives (<0.15%) which are not considered hazardous at the concentration(s) used. May contain up to 0.05% sulfur. See Section 15 for list of SARA Section 313 toxic chemicals.

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4. FIRST AID MEASURES

Route	Measures
Inhalation	For those providing assistance, avoid exposure to yourself or others. Remove person to fresh air. If person is not breathing, ensure an open airway and provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so and seek medical attention immediately. If respiratory irritation, dizziness, nausea or unconsciousness occurs seek medical attention immediately.
Ingestion	Aspiration Hazard: DO NOT INDUCE VOMITING. Do not give liquids. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspirating liquids into lungs, causing serious damage and chemical pneumonitis. If patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. If the victim is conscious, small amounts of material which enter the mouth should be rinsed out until the taste is dissipated. Seek medical attention immediately.
Eye Contact	In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Check for and gently remove contact lenses while flushing. Seek medical attention immediately.
Skin Contact	Remove contaminated clothing and shoes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN). Thermal burns may require immediate medical attention.

Most Important Symptoms

Irritating to the skin and mucous membranes. Symptoms may include redness, itching and inflammation. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Preexisting skin conditions and/or respiratory disorders may be aggravated by exposure to this product.

Notes to Medical Professionals

INHALATION: Inhalation exposure can produce toxic effects. The priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. Monitor for respiratory distress and anticipate seizures. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis and pneumonitis.

SKIN or EYES: Accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. Immediately wash or flush contaminated eyes with gently flowing water. If possible, irrigate each eye continuously with 0.9% saline (NS).

INGESTION: Do not induce vomiting. Low viscosity product can be sucked into the lungs and cause damage after swallowing or vomiting. The metabolism of fatty acid methyl ester may release free methanol in the body that could induce metabolic acidosis with delayed effects. If a large amount of product is ingested, i.e. several ounces, consider the use of ethanol or fomepizole (Antizol) and hemodialysis. Consult standard literature or contact a poison control center for treatment details.

5. FIRE-FIGHTING MEASURES

Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

Extinguishing Media

SMALL FIRES: Small fires in the incipient (beginning) stage may be extinguished using handheld portable fire extinguishers. Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, foam or Halon.

LARGE FIRES: Water spray or fog or firefighting foam. Water may also be used to cool fire-exposed containers. Do not use straight water streams as this may spread the fire.

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Specific Hazards / Products of Combustion

This product is not a flammable liquid per the OSHA Hazard Communication Standard, but may ignite and/or burn at temperatures exceeding the flash point. Biodiesel soaked rags or spill absorbents (i.e. oil dry, polypropylene pads or socks) can spontaneously combust if not properly handled. Store biodiesel soaked rags or absorbents in approved safety containers and dispose of properly. Oil soaked rags may be washed with soap and water and allowed to dry in a well-ventilated area.

Combustion may produce smoke, carbon monoxide and other products of incomplete combustion.

Special Precautions and Protective Equipment for Firefighters

Isolate area around container involved in fire. Move containers from fire area (if applicable) and safe to do so. Consider initial downwind evacuation for at least 1,000 feet. If tank, rail car or tank truck is involved in a fire, consider evacuation for 1 mile in all directions.

Fight the fire from the maximum distance. Cool burning tanks, shells or containers exposed to fire and excessive heat with water until well after the fire is out. For massive fires, the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Withdraw immediately in case of rising sound from venting safety devices or discoloration the tank.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus (SCBA) with full face piece and full protective clothing.

Refer to Section 9 for fire properties of this chemical including flash point, auto ignition temperature and explosive limits.

6. ACCIDENTAL RELEASE MEASURES

ACTIVATE FACILITY SPCC, SPILL CONTINGENCY or EMERGENCY PLAN.

Personal Precautions

Only properly trained personnel should respond to spills. Evacuate nonessential personnel and remove or secure all ignition sources (flame, spark, hot work, hot metal, etc.). 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.

Consider wind direction; stay upwind and uphill, if possible. Avoid inhaling vapors. Evaluate the direction of product travel, diking, sewers, etc. to identify the extent of the spill area. Do not touch or walk-through spilled material.

Flammable material, even small spills may pose a fire danger for emergency responders. Prevent the spill from entering streams, sewers, drains or trenches. Ventilate the area. Use of non-sparking tools and intrinsically safe equipment is recommended. See Sections 2 and 7 for further hazard warnings and handling instructions.

Use appropriate personal protective equipment to prevent eye/skin contact and absorption. Use NIOSH approved respiratory protection, if warranted, to prevent exposures above permissible limits (see Section 8). Contaminated clothing should not be worn near sources of ignition.

Emergency Measures

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Consider wind direction. Secure all ignition sources (flame, spark, hot work, hot metal, etc.) from area. Evaluate the direction of product travel, diking sewers, etc. to confirm spill areas. Immediate cleanup of any spill is recommended. Do not touch or walk-through spilled material. For large spills, isolate initial action distance downwind 1,000 ft. (300 m).

Environmental Precautions

Control the source of the spill to prevent or minimize environmental impact if it can be done safely. Keep on impervious surface if possible. Product is toxic to aquatic life. Isolate environmental receptors including drains, storm sewers and natural water bodies if safe to do so, to prevent the spill from reaching a waterbody. Water intakes on waterways that may be impacted by spills should be closed or protected. Environmentally sensitive areas on waterways that may be impacted by spills should be protected.

Spills to land may infiltrate subsurface soil and impact groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Follow federal, state and local requirements for reporting environmental release where necessary (see Section 15 for further information).

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Containment and Clean-Up Methods

Identify the source of the spill and stop the leak, if safe to do so. Protect bodies of water by creating dams to divert the flow away from the waterbody using soil, granular absorbents, absorbent boom or pads or by closing valves on lines that drain to the waterbody. Prevent the spill from running off impervious surfaces if possible. Do not flush down sewer or drainage systems, unless the system is designed and permitted to handle such material. If water is used to prevent product from spreading, use sparingly.

Wind and water current speed and direction and wave action may influence the response actions for a spill to water. Containment boom may be used to collect and confine a spill to water. Skimmers can be used to recover the product. Local specialists should be consulted.

Granular absorbents, hydrophobic spill pads or booms, dry earth, sand or other non-combustible, inert oil absorbing materials may be used to take up spills to land. Carefully shovel, scoop or sweep up into a waste container with clean, non-sparking tools for reclamation or disposal. Response and clean-up crews must be properly trained and must utilize proper personal protective equipment (see Section 8). Licensed waste disposal contactors should be used to transport the waste material generated by cleanup activities to the disposal site.

7. HANDLING AND STORAGE

USE ONLY AS A FUEL
DO NOT SIPHON BY MOUTH

Handling Precautions

Handle as a combustible liquid. Keep away from heat, sparks and open flame. No smoking. Electrical equipment should be approved for classified area. Bond and ground containers during product transfer pursuant to NFPA 70 and API RP 2003 to reduce the possibility of static-initiated fire or explosion. Use only non-sparking tools. Follow precautions to prevent static initiated fire. Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Only use approved containers. Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres.

Empty containers may contain residue and can be dangerous. Do not pressurize, weld, cut, braze, solder, drill, grind or expose the containers to heat, flame, sparks or other sources of ignition.

Use only with personal protective equipment specified in Section 8. Avoid repeated and/or prolonged skin exposure. Use only outdoors or in well ventilated areas. Wash hands before eating, drinking, smoking or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. Emergency eye wash capability should be available in the proximity of operations presenting a potential splash exposure.

Storage

Store in accordance with local regulations. Store in a well-ventilated area. Separate this product from incompatible materials such as oxidizers and strong acids (see Section 10) by distance or secondary containment. Protect containers from damage and vehicular traffic. Keep away from flame, sparks, excessive temperatures and open flame. Post "No Smoking" signs in product storage areas. Keep containers closed and clearly labeled. Label all secondary containers that this material is transferred into with the chemical name and associated hazard(s). Store wiping rags in metal cans with tightly fitting lids. Corrosion and microbial growth are promoted by the presence of water. Avoid contamination by storing in water-free tanks with scheduled water drainage. Contact with copper/alloys, lead, tin and zinc may result in increased sediment and deposits that can plug filters. Degradation can be avoided by preventing temperature extremes and the presence of air during storage.

Incompatibles

Keep away from strong oxidizers, ignition sources and heat.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS #	List	Value
No. 2 Diesel	68476-34-6	ACGIH TWA	100 mg/m ³ Skin - potential significant contribution to overall exposure by the cutaneous route

Engineering Controls

Use explosion-proof equipment to provide local or general exhaust when using this product at elevated temperatures that generate vapors or mists, particularly in confined spaces or other areas where vapors may accumulate. Grounding and bonding shall be used to prevent accumulation and discharge of static electricity.

Emergency decontamination shower and eyewash should be provided in proximity to handling areas in the event of exposure.

Personal Protective Equipment

Personal protective equipment (PPE) that meets regulatory requirements or recommended national standards is required.

Exposure	Equipment
Eye / Face	Safety glasses with side shields should be worn as a minimum. Safety glasses or goggles and face shield are recommended where there is a possibility of splashing or spraying. Eyewash stations and shower facilities should be located near potential exposure locations.
Skin	Wear appropriate personal protective clothing to prevent skin contact. Gloves constructed of nitrile, neoprene or PVA are recommended when handling this material. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.
Respiratory	No respiratory protection is required under typical operating conditions with adequate ventilation. No exposure limits are available. A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be worn if irritation or discomfort is experienced. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic and the manufacturer for additional guidance on respiratory protection selection and limitations. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres or any other circumstance where an air-purifying respirator may not provide adequate protection. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor or if air-purifying filter capacity/rating may be exceeded. Self-contained breathing apparatus should be used for fire-fighting.
Personal Hygiene	Always observe good personal hygiene measures such as washing after handling the material and before eating, drinking, smoking or using the lavatory. Routinely wash work clothing and protective equipment to remove contaminants.
Thermal	Product is stored at ambient temperature. No thermal protection is required except for emergency operations involving actual or potential for fire. Use adequate ventilation to control vapor concentrations of this product, particularly in confined spaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to amber liquid.
Odor	Mild oily or animal fat odor
Odor Threshold	Not determined
pH	Not applicable
Melting / Freeze Point	30 to 68° F (-1 to 20° C)
Boiling Point and Range	>392 °F (>200 °C)

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Flash Point	>200 °F (>93 °C)
Evaporation Rate	>1 (n-butyl acetate = 1)
Flammability (solid/gas)	Not Applicable
Flammability Limits	Not determined
Vapor Pressure	<2 mm Hg @ 68 °F (20°C)
Vapor Density	>1, Air = 1
Specific Gravity	0.87 (water =1)
Solubility	Negligible in water
Partition Coefficient	Not determined
Autoignition Temperature	374-449 °C / 705-840 °F
Decomposition	Not determined
Kinematic Viscosity	3.90-4.05 cSt @ 40°C (ASTM D445)
Percent Volatiles	0 - 1%

10. STABILITY AND REACTIVITY

Stability

Stable under recommended storage, transport and usage conditions. A fire may result if an ignition source is present.

Reactivity

Material is not self-reacting. May react with oxidizing materials.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Will not occur.

Incompatibility

Keep away from strong acids, alkalis and strong oxidizers such as nitric and sulfuric acids.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, static electricity, welding, smoking and other ignition sources. Water contamination during storage.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation	Excessive inhalation of mist may result in respiratory irritation. Overheating may produce vapors which may cause respiratory irritation, dizziness and nausea.
Eye contact	Produces little or no irritation on direct contact with the eye.
Skin contact	May cause sensitization by skin contact. Prolonged and repeated contact may cause defatting and drying of the skin and may lead to irritation and/or dermatitis.
Ingestion	Ingestion of large amounts may cause gastrointestinal disturbances. Aspiration into lungs may cause chemical pneumonia and lung damage.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
Biodiesel (Tallow derived) 61788-61-2	-	-	-
Biodiesel (Soybean derived) 67784-80-9	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-

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Biodiesel (Rapeseed derived) 73891-99-3	-	-	-
Biodiesel (Fatty Acid, Methyl Ester) 68937-84-8	> 2000 mg/kg (Rat)	-	-
Biodiesel (Canola derived) 129828-16-6	-	-	-
No. 2 Diesel Fuel 68476-34-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>1 - <5 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

BIODIESEL (SOYBEAN DERIVED): Dermal sensitization study (Guinea Pigs) repeat insult patch procedure with induction and challenge patches indicated a positive sensitization response.

PETROLEUM MIDDLE DISTILLATES: May cause damage to organs after repeated and prolonged dermal overexposure. Repeated dermal application for 13 weeks has produced decreased liver, thymus, and spleen weights. Microscopic alterations included liver enlargement and damage. Petroleum middle distillates have produced skin tumors in mice after repeated and prolonged skin contact and have tested positive with in vitro genotoxicity tests. Additional studies indicated prolonged skin irritation contributes to tumor development. Repeated dermal exposures to high concentrations of petroleum middle distillates in test animals resulted in reduced litter size and litter weight, and increased fetal resorptions at maternally toxic doses. Dermal exposure to high concentrations resulted in severe skin irritation with weight loss and some mortality.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and Symptoms May cause allergic skin reaction. Symptoms may include redness, itching, and inflammation. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Preexisting skin conditions and/or respiratory disorders may be aggravated by exposure to this product.

Sensitization May cause sensitization by skin contact. Not expected to be a respiratory sensitizer.

Mutagenic effects None known.

Carcinogenicity Suspected of causing cancer. Cancer designations are listed in the table below.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
No. 2 Diesel Fuel 68476-34-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Biodiesel (Tallow derived) 61788-61-2	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Soybean derived) 67784-80-9	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Rapeseed derived) 73891-99-3	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Fatty Acid, Methyl Ester) 68937-84-8	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Canola derived) 129828-16-6	Not Listed	Not Listed	Not Listed	Not Listed

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Reproductive toxicity	None known.
Specific Target Organ Toxicity (STOT) - single exposure	Not classified.
Specific Target Organ Toxicity (STOT) - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed or vomited and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity: 24-hour LC50 for biodiesel is 4.65 mg/L in *Daphnia magna* (water flea) juveniles (J. Air & Waste Manage. Assoc. 57:286–296). This product should be considered toxic to aquatic organisms.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Biodiesel (Tallow derived) 61788-61-2	-	-	-	-
Biodiesel (Soybean derived) 67784-80-9	-	-	-	-
Biodiesel (Rapeseed derived) 73891-99-3	-	-	-	-
Biodiesel (Fatty Acid, Methyl Ester) 68937-84-8	-	-	-	-
Biodiesel (Canola derived) 129828-16-6	-	-	-	-
No. 2 Diesel Fuel 68476-34-6	-	96-hr LC50 = 35 mg/l Fathead minnow (flow-through)	-	48-hr EL50 = 6.4 mg/l <i>Daphnia magna</i>

Persistence and degradability

Expected to be readily biodegradable under aerobic conditions.

Bioaccumulation

Not expected to bioaccumulate in aquatic organisms.

Mobility in soil

May partition into air, soil and water.

Other adverse effects

No information available.

Other Information

Insoluble and floats on water.

13. DISPOSAL CONSIDERATIONS

The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Shipping containers used for waste must be DOT authorized packages. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Waste packaging should be recycled or disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Long-term storage may result in decomposition of the oil and could result in a rancid odor.

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14. TRANSPORT INFORMATION

US DOT

UN Identification Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Hazard Class and Packing Group	Not Regulated

TDG Canada

UN Identification Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Hazard Class and Packing Group	Not Regulated

15. REGULATORY INFORMATION

Federal, State and Local Regulatory Information

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state or local regulations; consult those regulations applicable to your facility/operation.

Clean Water Act (Oil Spills)

Any spill or release of this product to "navigable waters" (essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) or, if not practical, the U.S. Coast Guard with follow-up to the National Response Center, as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

EPA Notification (Oil Spills)

If there is a discharge of more than 1,000-gallons of oil into or upon navigable waters of the United States or if it is the second spill event of 42 gallons or more of oil into water within a twelve (12) month period, a written report must be submitted to the Regional Administrator of the EPA within sixty days of the event.

CERCLA Section 103 (Release to the Environment)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, refined and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 or the Clean Water Act if the spill occurs on navigable waters) may still apply.

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List.

SARA Section 304: This product does not contain component(s) identified as a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

SARA: Title III Classifications Sections 311 & 312:

- Acute: YES
- Chronic: YES
- Fire: NO
- Reactivity: NO
- Sudden Release of Pressure: NO

SARA Section 313: This product may contain component(s), which if in exceedance of the de minimis threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting:
Biodiesel (Tallow derived)	None
Biodiesel (Soybean derived)	None
Biodiesel (Rapeseed derived)	None
Biodiesel (Fatty Acid, Methyl Ester)	None
Biodiesel (Canola derived)	None
No. 2 Diesel Fuel	None

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State and Community Right-To-Know Regulations:

Biodiesel (Soy, Tallow, Canola, Rapeseed, Fatty Acid Methyl Ester)

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To-Know:	Not Listed
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

No. 2 Diesel Fuel

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	SN 2444
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To-Know:	Not Listed
Florida Substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan Critical Materials Register List:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Carcinogen; Flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 2444 TPQ: 10000 lb (Under N.J.A.C. 7:1G, environmental hazardous substances in mixtures such as gasoline or new and used petroleum oil may be reported under these categories)
Illinois - Toxic Air Contaminants:	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Canadian Regulatory Information: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
No. 2 Diesel Fuel	B3, D2A, D2B	0.1%
Toluene	B2, D2A, D2B	0.1%
Xylene (mixed isomers)	B2, D2A, D2B	m-, o-isomers 1.0%; p-isomer 0.1%
n-Hexane	B2, D2A, D2B	1%
Cumene	B2, D2A	0.1%
Ethylbenzene	B2, D2A, D2B	0.1%
Benzene	B2, D2A, D2B	0.1%
Naphthalene	B4, D2A	0.1%

SAFETY DATA SHEET

Biofuel, B99/B100

16. OTHER INFORMATION

Description of Revisions

Revised to meet Globally Harmonized System for chemical hazard communication requirements pursuant to OSHA regulatory revisions 77 FR 17884, March 26, 2012.

Abbreviations

°F	Degrees Fahrenheit (temperature)	mg	Milligram
<	Less than	mL	Milliliter
=	Equal to	mm ²	Square millimeter
>	Greater than	mmHg	Millimeters of mercury (pressure)
AP	Approximately	ppm	Parts per million
°C	Degrees Centigrade (temperature)	sec	Second
kg	Kilogram	ug	Microgram
L	Liter		

Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
		OPA	Oil Pollution Act of 1990
AIHA	American Industrial Hygiene Association	OSHA	U.S. Occupational Safety & Health Administration
AL	Action Level		
ANSI	American National Standards Institute	PEL	Permissible Exposure Limit (OSHA)
API	American Petroleum Institute	RCRA	Resource Conservation and Recovery Act Reauthorization Act of 1986 Title III
CAS	Chemical Abstract Service		
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act	REL	Recommended Exposure Limit (NIOSH)
		RVP	Reid Vapor Pressure
DOT	U.S. Department of Transportation	SARA	Superfund Amendments and
EC50	Ecological concentration 50%	SCBA	Self-Contained Breathing Apparatus
EPA	U.S. Environmental Protection Agency	SPCC	Spill Prevention, Control and Countermeasures
ERPG	Emergency Response Planning Guideline		
GHS	Global Harmonized System	STEL	Short-Term Exposure Limit (generally 15 minutes)
HMIS	Hazardous Materials Information System		
IARC	International Agency for Research On Cancer	TLV	Threshold Limit Value (ACGIH)
IATA	International Air Transport Association	TSCA	Toxic Substances Control Act
IMDG	International Maritime Dangerous Goods	TWA	Time Weighted Average (8 hr.)
Koc	Soil Organic Carbon	UN	United Nations
LC50	Lethal concentration 50%	UNECE	United Nations Economic Commission for Europe
LD50	Lethal dose 50%		
MSHA	Mine Safety and Health Administration	WEEL	Workplace Environmental Exposure Level (AIHA)
NFPA	National Fire Protection Association		
NIOSH	National Institute of Occupational Safety and Health	WHMIS	Canadian Workplace Hazardous Materials Information System
NOIC	Notice of Intended Change		

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** End of Safety Data Sheet **