1. B100 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Biodiesel B100
Supplier: J.P. Morgan Ventures Energy Corporation
383 Madison Avenue, 10th floor
New York, NY 10017
Synonyms: B100 Biodiesel, Soybean Oil Methyl Esters, Rapeseed Methyl Esters, Tallow Methyl Esters, Canola Methyl Esters, Palm Methyl Esters, Fatty Acid Methyl Esters
Chemical Family: Fatty Acid Alkyl Esters
Intended Use: Fuel

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Concentration (%)</th>
<th>ACGIH Exposure Limits</th>
<th>OSHA Exposure Limits</th>
<th>NIOSH Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Alcohol (67-56-1)</td>
<td>&lt;0.2</td>
<td>200 ppm TWA</td>
<td>200 ppm TWA</td>
<td>6000 ppm IDLH</td>
</tr>
<tr>
<td>Soybean Oil Methyl Esters (67784-80-9)</td>
<td>0 - 100</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Rapeseed Oil Methyl Esters (73891-99-3)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tallow Methyl Esters (61788-61-2)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palm Methyl Esters (91051-32-0)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetable Methyl Esters (68990-52-3)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canola Oil Methyl Esters (129828-16-6)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsaturated Alkylcarboxylic Acid Methyl Ester (67762-26-9)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatty Acids, C8-C18, Methyl Ester (68937-84-8)</td>
<td>0 - 100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional for further information.

ACGIH - American Conference of Government Industrial Hygienists, OSHA - Occupational Safety and Health Administration, NIOSH - National Institute for Industrial Safety and Health, TWA - Time Weighted Average (8 hour average for ACGIH and OSHA, 10 hour average for NIOSH), STEL - 15 Minute Short Term Exposure Level, Skin - indicates potential for cutaneous absorption, Ceiling - Ceiling Level, Peak - Acceptable peak over the ceiling concentration for a specified number of minutes, IDLH - Immediately Dangerous to Life and Health

3. HAZARDS IDENTIFICATION

Emergency Overview: This product is a clear to pale yellow liquid. Keep away from heat, sparks, flames and other sources of ignition. Never siphon this product by mouth. If swallowed, this product may be aspirated into the lungs and cause lung damage or death.
3. HAZARDS IDENTIFICATION

Potential Acute Health Effects

Inhalation  Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Effects of overexposure include irritation of the eyes, nose, throat and respiratory tract and blurred vision.

Eye Contact  This product can cause eye irritation from short-term contact with liquid, mists or vapors. Symptoms include stinging, watering, redness and swelling. Effects may be more serious with repeated or prolonged contact.

Skin Contact  Mild to moderate skin irritant. Contact may cause redness, itching, burning and skin damage. Prolonged or repeated skin contact may cause drying and cracking of the skin, and dermatitis (inflammation).

Ingestion  Ingestion may result in nausea, vomiting, diarrhea and restlessness. Aspiration (inadvertent suction) of liquid into the lungs must be avoided as even small quantities in the lungs can produce lung inflammation and damage.

Potential Chronic Health Effects

Signs and Symptoms  Chronic effects of overexposure are similar to acute effects including skin dermatitis and conjunctivitis.

Carcinogenic Potential  Specific subchronic toxicity studies have not been conducted, but this product is considered to have a low order of oral and dermal toxicity.

Target Organs  No Data Available.

Conditions Aggravated by Overexposure  No Data Available.

4. FIRST AID MEASURES

Inhalation  Move the exposed person to fresh air. If not breathing, clear airways and give artificial respiration. If breathing is difficult, humidified oxygen should be administered by qualified personnel. Seek medical attention if breathing difficulties continue.

Eye  Flush eyes with water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye. Remove contact lenses, if worn, after initial flushing. Do not use eye ointment. Seek medical attention.

Skin  Remove contaminated shoes and clothing, and flush affected areas with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists. Launder or discard contaminated clothing.

Ingestion  Aspiration hazard. Do not induce vomiting or give anything by mouth because the material can enter the lungs and cause severe lung damage. If spontaneous vomiting is about to occur, place victim’s head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.
4. FIRST AID MEASURES

Notes to Physician
No Data Available.

5. FIRE FIGHTING MEASURES

Flammability Classification
OSHA Classification (29 CFR 1910.1200): Not Classified by OSHA as a Flammable or Combustible Liquid
NFPA Ratings: Health: 0, Flammability: 1, Reactivity: 0

Flash Point
>150°C, >300°F Closed Cup (Pensky-Martens )

Flammable Limits
Lower Limit: No Data Available
Upper Limit: No Data Available

Autoignition Temperature
> 500°F

Combustion Products
Highly dependent on combustion conditions. Fume, smoke, carbon monoxide, carbon dioxide, sulfur and nitrogen oxides, unburned hydrocarbons.

Fire and Explosion Hazards
This material is not a combustible liquid per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point. Vapors are heavier than air and can accumulate in low areas. May create vapor/air explosion hazard indoors, in confined spaces, outdoors or in sewers. A product container, if not properly cooled, can rupture in the heat of a fire.

Extinguishing Media
Dry chemical, carbon dioxide or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

Fire Fighting Instructions
Use water spray to cool fire-exposed containers and to protect personnel. Isolate immediate hazard area and keep unauthorized personnel out. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water. Avoid spreading burning liquid with water used for cooling.

For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by regulations, a self-contained breathing apparatus should be worn. Wear other appropriate protective equipment as conditions warrant.

6. ACCIDENTAL RELEASE MEASURES

Protective Measures
Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment as conditions warrant per Exposure Controls/Personal Protection guidelines.

Spill Management
Stop the leak if it can be done without risk. Prevent spilled material from entering waterways, sewers, basements or confined areas. Contain release to prevent further contamination of soils, surface water or groundwater. Clean up spill as soon as possible using appropriate techniques.
6. ACCIDENTAL RELEASE MEASURES

such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Dispose of contaminated materials in a manner consistent with applicable regulations.

Reporting

Report spills/releases as required, to appropriate local, state and federal authorities. US Coast Guard and Environmental Protection Agency regulations require immediate reporting of spills/release that could reach any waterway including intermittent dry creeks. Report spill/release to the National Response Center at (800) 424-8802. In case of accident or road spill, notify Chemtrec at (800) 424-9300.

7. HANDLING AND STORAGE

Handling

Use ONLY as a motor fuel. Do NOT siphon by mouth. Use non-sparking tools and explosion-proof equipment. Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. Explosion-proof electrical equipment is recommended and may be required by fire codes. Warning! Use of this material in spaces without adequate ventilation may result in the generation of hazardous levels of combustion products and/or inadequate oxygen levels for breathing. Odor is an inadequate warning for hazardous conditions.

Storage

Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces and all sources of ignition. Post area warnings: ‘No Smoking or Open Flame’. Keep away from incompatible material. Outdoor or detached storage of portable containers is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

Special Precautions

To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Do not use electronic devices (such as cellular phones, computers, calculators, pagers, etc.) in or around any fueling operation or storage area unless the devices are certified as intrinsically safe. Electrical equipment and fittings should comply with local fire codes.

Portable Containers

Portable containers should never be filled while they are in or on a motor vehicle or marine craft. Static electricity may ignite vapors when filling non-grounded containers or vehicles on trailers. To avoid static buildup, do not use a nozzle lock open device. Use only approved containers. Keep containers tightly closed. Place the container on the ground before filling. Keep the nozzle in contact with the container during filling.

Empty Container Warning

Empty containers retain liquid and vapor residues and can be dangerous. Do NOT pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity or other sources of ignition; they may explode and cause injury or death. Do not attempt to refill or clean containers since residue is difficult to remove. Empty drums should be completely drained, properly closed and returned to the supplier or a qualified drum reconditioner. All containers should be disposed of in an environmentally safe manner in accordance with government regulations.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

General Considerations

Consider the potential hazards of this material, applicable exposure limits, job activities and other substances in the work place when designing engineering controls and selecting personal protective equipment.
8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls

Use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below the recommended exposure limits. An emergency eye wash station and safety shower should be located near the work station.

Personal Protective Equipment

If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, personal protective equipment (PPE) is recommended. A hazard assessment of the work should be conducted by a qualified professional to determine what PPE is required.

Respiratory Protection

When airborne concentrations are expected to exceed the established exposure limits given in Section 2, use a NIOSH approved organic vapor respirator. Use a full-face positive-pressure supplied air respirator in circumstances where air-purifying respirators may not provide adequate protection. If internal combustion devices are used in an enclosed space, carbon monoxide will be present in the exhaust. If the airborne concentrations are above the occupational exposure limit for carbon monoxide, use a positive pressure air-supplying respirator.

Eye Protection

Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Chemical goggles should be worn during transfer operations or when there is a likelihood of misting, splashing or spraying of this material.

Skin and Body Protection

Avoid skin contact. Wear long-sleeved fire-retardant garments while working with flammable and combustible liquids. Additional chemical-resistant protective gear may be required if splashing or spraying conditions exist. This may include an apron, arm covers, impervious gloves, boots and additional facial protection.

Hand Protection

Avoid skin contact. Use impervious gloves (e.g., PVC, neoprene, nitrile rubber). Wash hands with plenty of mild soap and water before eating, drinking, smoking, using toilet facilities or leaving work.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear to Light Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>pH</td>
<td>Neutral</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt; 2 (air = 1)</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>840 g/l VOC</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.81 – 0.88 @ 60°F</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>170 - 200</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;300°F/150°C</td>
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<tr>
<td>Explosive Limits</td>
<td>0.3% LEL, 10% UEL</td>
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<tr>
<td>Solubility in Water</td>
<td>Slightly Soluble</td>
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<tr>
<td>Physical Form</td>
<td>Liquid</td>
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<tr>
<td>Odor Threshold</td>
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<tr>
<td>Vapor Pressure</td>
<td>0.01 psi @ 100°F, 38°C</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
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<tr>
<td>Partition Coefficient</td>
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<tr>
<td>Density</td>
<td>7.1 lb/gal @ 60°F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Test Method</td>
<td>Closed Cup (Pensky-Martens)</td>
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<tr>
<td>Autoignition Temperature</td>
<td>500°F/260°C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability

Stable under normal anticipated storage and handling temperatures and pressures.

Conditions to Avoid

Avoid all possible sources of ignition.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents such as strong acids, alkalies, chlorine and other halogens, dichromates or permanganates, which can cause fire or explosion.

Hazardous

The use of fuel in an area without adequate ventilation may result in hazardous levels of
10. STABILITY AND REACTIVITY

Decomposition Products: Combustion products (e.g., oxides of carbon, sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels.

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Biodiesel

Acute Toxicity:
- Dermal LD50 = 2,000 mg/kg (Rabbit)
- LC50 = Unknown 4000 ppm/4 hr; 13,367 ppm (Rat)
- Oral LD50 = 5,000 mg/kg (Rat)

Carcinogenicity: Specific subchronic toxicity studies have not been conducted, but biodiesel is considered to have a low order of oral and dermal toxicity.

Target Organs: Skin.

Methyl Alcohol 67-56-1

Acute Toxicity:
- Dermal LD50 = 15,800 mg/kg (Rabbit)
- LC50 = >64,000 ppm/4H (Rat), 83.2 mg/l/4H (Rat)
- Oral LD50 = 5,628 mg/kg; (Rat).

12. ECOLOGICAL INFORMATION

Ecotoxicity: 96 hours LC50: >1000 mg/l (Bluegill Fish) for Biodiesel

Environmental Fate: This product does not concentrate or accumulate in the food chain. If released to soil and water, this product is expected to biodegrade under both aerobic and anaerobic conditions.

13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. However, it should be fully characterized prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a qualified drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>United States Department of Transportation (US DOT)</th>
<th>Shipping Description: This material is not regulated as a hazardous material or dangerous goods by DOT regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shipping Name: Fatty Acid Ester (National Motor Freight Classification)</td>
</tr>
</tbody>
</table>
14. TRANSPORTATION INFORMATION

| Transportation of Dangerous Goods (TDG) Canada | ID Number: 144920 (National Motor Freight Classification) |
| Shipping Classification: 65 (National Motor Freight Classification) |
| Reportable Quantity: None established for this material |
| MARPOL III Status: Not a DOT Marine Pollutant per 49 CFR 171.8 |

| International Maritime Organization International Maritime Dangerous Goods Code (IMO/IMDG) | Shipping Description: This material is not regulated as a hazardous material or dangerous goods for transportation. |
| MARPOL III Status: Not a DOT Marine Pollutant per 49 CFR 71.8 |

| European Agreements Concerning the International Carriage by Rail (RID) and by Road (ADR) | Shipping Name: This material is not regulated as a hazardous material or dangerous goods for transportation. |

| International Civil Aviation Organization / International Air Transport Association (ICAO/IATA) | Shipping Name: This material is not regulated as a hazardous material or dangerous goods for transportation. |

15. REGULATORY INFORMATION

United States Federal Regulatory Information

**EPA TSCA Inventory**

This product and/or its components are listed on the Toxic Substances Control Act (TSCA) Inventory.

**EPA SARA 302/304 Emergency Planning and Notification**

This material contains the following chemicals subject to reporting under the Superfund Amendments and Reauthorization Act of 1986 (SARA): Product is not listed as an extremely hazardous substance.

**EPA SARA 311/312 (Title III Hazard Categories)**

Acute Health: No
Chronic Health: No
Fire Hazard: No
Pressure Hazard: No
Reactive Hazard: No

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EPA SARA Toxic Chemical Notification and Release Reporting (40 CFR 372) and CERCLA Reportable Quantities (40 CFR 302.4)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (CWA). This product is considered an oil and is subject to federal oil spill reporting requirements.

**EPA CWA and OPA**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (CWA). This product is considered an oil and is subject to federal oil spill reporting requirements.

Canadian Regulatory Information

**DSL/NDSL Inventory**

This product and/or its constituents are listed either on the Domestic Substances List (DSL), the Non Domestic Substances List (NDSL) or are exempt.
15. REGULATORY INFORMATION

Workplace Hazardous Materials Information System (WHMIS)
Hazard Class

This product is not regulated by the WHMIS.

European Union Regulatory Information

Labeling
Product is not dangerous as defined by the European Union Dangerous Substances / Preparations Directives

California Proposition 65
This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Chemicals known to the State of California to cause cancer, birth defects or other reproductive harm are created by the combustion of this product. Carcinogens: Diesel Engine Exhaust; Developmental Toxicity:

Carcinogen Identification by International Agency for Research on Cancer

<table>
<thead>
<tr>
<th>Group</th>
<th>Carcinogenicity</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>Carcinogenic to Humans</td>
<td>None</td>
</tr>
<tr>
<td>Group 2A</td>
<td>Probably Carcinogenic to Humans</td>
<td>None</td>
</tr>
<tr>
<td>Group 2B</td>
<td>Possibly Carcinogenic to Humans</td>
<td>None</td>
</tr>
<tr>
<td>Group 3</td>
<td>Not Classifiable</td>
<td>None</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Prepared By
J.P. Morgan Ventures Energy Corporation
383 Madison Avenue, 10th floor
New York, NY 10017

Precautionary Label
Keep away from heat and flame. Avoid prolonged or repeated overexposure by skin contact or inhalation. Use with adequate ventilation. Keep container closed. Keep out of reach of children.

In case of contact, wash skin with soap and water. Immediately remove contaminated clothing, including shoes. Destroy or wash clothing before reuse. If swallowed, seek immediate medical attention. Do not induce vomiting. Only induce vomiting at the instruction of a physician.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm are created by the combustion of this product. Refer to product Material Safety Data Sheet for further safety and health information.
16. OTHER INFORMATION

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.