Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name
BIODIESEL

Company Name
VIVA ENERGY AUSTRALIA PTY LTD (FORMERLY: SHELL COMPANY OF AUSTRALIA LTD) (ABN 46 004 610 459)

Address
Level 16, 720 Bourke Street Docklands
Victoria 3008 Australia

Emergency Tel.
1800 651 818 (Australia) / Poisons Information Centre: 13 11 26 (Australia)

Telephone/Fax Number
Tel: +61 (0)3 8823 4444
Fax: +61 (0)3 8823 4800

Recommended Use
Recommended Use: Automotive fuel

Other Names

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Code</th>
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<tbody>
<tr>
<td>B100</td>
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<tr>
<td>FAME</td>
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<tr>
<td>FATTY ACID METHYL ESTER</td>
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2. HAZARD IDENTIFICATION

Hazard Classification
Not classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

<table>
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<tr>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
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<tbody>
<tr>
<td>Methyl esters from lipid sources</td>
<td>67784-80-9</td>
<td>99 %</td>
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</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation
If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

**Ingestion**
Do not induce vomiting. Wash mouth thoroughly with water. Seek medical attention.

**Skin**
Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

**Eye**
If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

**First Aid Facilities**
Eyewash and normal washroom facilities.

**Advice to Doctor**
Treat symptomatically.

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### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Dry chemical, foam, CO2, water spray - fog (water stream may splash the burning liquid and spread fire).

**Hazards from Combustion Products**
Combustible liquid. If burning, may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

**Specific Hazards**
This product will burn if exposed to fire.

**Decomposition Temperature**
Not available

**Precautions in connection with Fire**
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

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### 6. ACCIDENTAL RELEASE MEASURES

**Emergency Procedures**
Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

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### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**
Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Do not use near ignition sources. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene by washing hands prior to eating, drinking, smoking or using toilet facilities.

**Conditions for Safe Storage**
Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

**Storage Regulations**
Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards
No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values
No biological limits allocated.

Engineering Controls
Provide sufficient ventilation to keep airborne levels below the exposure limits or as low as possible. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection
Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection
Wear gloves of impervious material such as PVC coated gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Pale yellow liquid

Odour
Mild odour

Decomposition Temperature
Not available

Boiling Point
>200°C @ 760 mm Hg

Solubility in Water
Insoluble

Specific Gravity
0.88

Vapour Pressure
<2 mm Hg

Vapour Density (Air=1)
>1

Evaporation Rate
<1

Viscosity
3.5 to 5 cSt at 40°C

Colour
Pale yellow

Volatile Component
<2 %
Density
Not available

Flash Point
> 120°C

Flammability
Combustible

Auto-Ignition Temperature
>200°C

Flammable Limits - Lower
Not available

Flammable Limits - Upper
Not available

Melting/Freezing Point
Not available

10. STABILITY AND REACTIVITY

Stability and reactivity
Reacts with incompatible materials.

Chemical Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Heat, direct sunlight, open flames and other sources of ignition.

Incompatible materials
Strong oxidising agents.

Hazardous Decomposition Products
Combustion produces carbon monoxide, carbon dioxide and thick smoke.

Hazardous Reactions
May react with strong oxidising agents. Biodiesel soaked rags or spill absorbents can cause spontaneous combustion if not handled properly – store in approved safety containers and dispose of correctly (oil soaked rags may be washed with soap and water and allowed to dry in a well ventilated area).

Hazardous Polymerization
Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No toxicity data available for this material.

Inhalation
Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Ingestion
Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Skin
May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye
May be irritating to eyes. The symptoms may include redness, itching and tearing.

Chronic Effects
Not available

12. ECOLOGICAL INFORMATION

Ecotoxicity
No ecological data available for this material.

Persistence / Degradability
Not available
13. DISPOSAL CONSIDERATIONS

Disposal considerations
The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information


Air Transport (ICAO/IATA): Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number
None Allocated

Proper Shipping Name
None Allocated

DG Class
None Allocated

Packing Group
None Allocated

15. REGULATORY INFORMATION

Regulatory information
Not classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule
Not Scheduled

Australia (AICS)
The listed chemicals are included in Australian Inventory of Chemical Substances (AICS) or otherwise notified under NICNAS.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS
SDS Reviewed: April 2015
Supersedes: May 2012

References
Standard for the Uniform Scheduling of Medicines and Poisons.

Approved criteria for classifying hazardous substances [NOHSC:1008(2004)].

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)