

Material Safety Data Sheet

VIVA ENERGY DIESEL

Infosafe No.: LQ4CF
ISSUED Date: 22/04/2015
ISSUED BY VIVA ENERGY AUSTRALIA
PTY LTD (FORMERLY: SHELL
COMPANY OF AUSTRALIA LTD)

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name

VIVA ENERGY DIESEL

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

Fuel for on-road diesel-powered engines, in marine diesel engines, boilers, gas turbines and other combustion equipment.
This product is intended for use in closed systems only.

Other Names

Name	Product Code
DIESOLINE B5	
DIESOLINE	
SHELL DIESEL EXTRA	
SHELL DIESEL EXTRA B5	
SHELL V POWER DIESEL B5	
SHELL ALPINE DIESEL EXTRA	
AUTOMOTIVE DIESEL FUEL	
SHELL V POWER ALPINE DIESEL	
SHELL EROMANGA DIESEL	
SHELL DIESEL	
SHELL MARINE DIESEL	

2. HAZARD IDENTIFICATION

Hazard Classification

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)

This product meet the requirement of special provision AU01. (refer to section 14)

Risk Phrase(s)

R40 Limited evidence of a carcinogenic effect.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness and cracking.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase(s)

S2 Keep out of reach of children.

S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

S36/37 Wear suitable protective clothing and gloves.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Liquid

Ingredients

Name	CAS	Proportion
Fuels, diesel	68334-30-5	95-100 %
Fatty acids, vegetable oil, methyl esters	68990-52-3	0-5 %

Preparation Description

Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C25 range. May also contain several additives at <0.1% v/v each. May contain cetane improver (Ethyl Hexyl Nitrate) at <0.2% v/v. May contain catalytically cracked oils in which polycyclic aromatic compounds, mainly 3-ring but some 4- to 6-ring species are present.

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 out mouth and lips with water. Where vomiting occurs naturally have affected person place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. 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.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide, oxides of sulphur and oxides of nitrogen.

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.

Unsuitable Extinguishing Media

Do not use water in a jet.

Other Information

Keep adjacent containers cool by spraying with water.

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.

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. Avoid exposure. Do not handle until all safety precautions have been read and understood.

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.

Recommended Materials

For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.

Unsuitable Materials

Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene.; However, some may be suitable for glove materials.

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

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. 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 nitrile gloves (Breakthrough time of > 240 minutes), neoprene, PVC 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.

Other Information

No exposure standards have been established for this material, however, the TWA exposure standards for refined mineral oil mist is 5 mg/m³. As with all chemicals, exposure should be kept to the lowest possible levels.

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Source: Safe Work Australia

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Colourless to straw liquid.

Odour

May contain a reodorant

Decomposition Temperature

Not available

Melting Point

Not available

Freezing Point

Not available

Boiling Point

170 - 390 °C

Solubility in Water

Not available

Specific Gravity

0.82 - 0.85 gm/cm at 15°C

pH Value

Not available

Vapour Pressure

< 1 hPa at 20 °C

Vapour Density (Air=1)

Not available

Colour

Colourless to straw

Octanol/Water Partition Coefficient

3 - 6

Density

Typical 0.84 g/cm³ at 15 °C

Flash Point

Typical 63 °C (ASTM D-93 / PMCC)

Flammability

Combustible

Auto-Ignition Temperature

> 220 °C

Flammable Limits - Lower

1 %(V)

Flammable Limits - Upper

6 %(V)

Kinematic Viscosity

2 - 4.5 mm²/s at 40 °C

10. STABILITY AND REACTIVITY

Stability and reactivity

Reacts with incompatible materials.

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

Incompatible materials

Strong oxidising agents.

Hazardous Decomposition Products

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

Hazardous Reactions

Not available

Hazardous Polymerization

Not available

11. TOXICOLOGICAL INFORMATION

Toxicology Information

The available toxicity data for material given below.

Inhalation

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

Ingestion

Harmful: may cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause pulmonary injury. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Skin

Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

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

Chronic Effects

Not available

Carcinogenicity

Limited evidence of a carcinogenic effect.

Acute Toxicity - Oral

LD50:(Rat): >2000 mg/kg

Acute Toxicity - Dermal

LD50:(Rabbit): >2000 mg/kg

Acute Toxicity - Inhalation

LD50:(Rat): >5 mg/l / 4 h

Other Information

Repeated Dose Toxicity: Kidney: Caused kidney effects in male rats which are not considered relevant to humans.

12. ECOLOGICAL INFORMATION

Ecological information

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence / Degradability

Major constituents are expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Mobility

Floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater. Contains volatile constituents.

Bioaccumulative Potential

Contains constituents with the potential to bioaccumulate.

Other Adverse Effects

Films formed on water may affect oxygen transfer and damage organisms.

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Other Organisms

LL/EL/IL50:(Aquatic organisms): 1-10 mg/l

13. DISPOSAL CONSIDERATIONS

Disposal considerations

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport (ADG Code):

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

This product meet the requirement of special provision AU01.

Note: Special Provision AU01:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in:

packagings that do not incorporate a receptacle exceeding 500 kg(L); or
IBCs

This product is not classified as Dangerous Goods UN number 1202.

Note: Special Provision AU02:

GAS OIL or DIESEL OIL or HEATING OIL, LIGHT or PETROLEUM DISTILLATE is not subject to this Code if it does not meet the criteria of Chapter 2.3 for assignment to Class 3; i.e. if the flash point is more than 60 oC and the substance is not offered for transport at a temperature above its flash point. Such substances will normally be C1 combustible liquids which are not classified as dangerous goods for transport purposes. However, the presence of a C1 combustible liquid in one or more compartments of a tank vehicle or portable tank transporting other refined petroleum products must be considered when determining the application of UN Number 1270 in accordance with 3.2.5.4 and 5.3.1.3.3.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 9

UN No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Packing Group: III

EMS : F-A, S-F

Special Provisions: 274, 335, 969

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division:

UN No: 3082

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

Packing Group: III

Packaging Instructions (passenger & cargo): 964

Packaging Instructions (cargo only): 964

Hazard Label: Miscellaneous

Special Provisions: A97, A158, A197

U.N. Number

None Allocated

DG Class

None Allocated

Packing Group

None Allocated

Other Information

This product is classified as Oils under MARPOL Annex I. MARPOL Annex I rules apply for bulk shipments by sea.

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

SUSMP Schedule: Not scheduled. When packed in containers having capacity of greater than 20 litres.

SUSMP Schedule: S5. When packed in containers having capacity of less than 20 litres.

Poisons Schedule

S5

Hazard Category

Harmful, Dangerous for the environment

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: April 2010

References

Standard for the Uniform Scheduling of Medicines and Poisons.

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

National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)].

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)

END OF SDS

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