

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name AEROSHELL TURBINE OIL 2
Synonym(s) NSN: XXXX-66-120-9318
001A0904 - PRODUCT CODE • GRADE 1010 • MIL-PRF-6081 • OM-10 • OM-10 (0-133) • SHELL
AEROSHELL TURBINE OIL 2 • TURBINE OIL 2

1.2 Uses and uses advised against

Use(s) AVIATION TURBINE OIL • ENGINE OIL • LUBRICANT • TURBINE OIL

1.3 Details of the supplier of the safety data sheet

Supplier name VIVA ENERGY AUSTRALIA LTD (FORMERLY SHELL COMPANY OF AUSTRALIA)
Address Level 2, 8 Redfern Road, Hawthorn East, VIC, Australia, 3123
Telephone 1300 134 205, (03) 9666 5444
Fax 1800 808 777; (03) 8823 4800
Email vivaenergy-bus-centre-au@vivaenergy.com.au
Website <http://www.vivaenergy.com.au>

1.4 Emergency telephone number(s)

Emergency 1800 651 818

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s) Aquatic Toxicity (Chronic): Category 3

2.2 Label elements

Hazard statement(s)

H412 Harmful to aquatic life with long lasting effects.

Prevention statement(s)

P273 Avoid release to the environment. This statement does not apply where this is the intended use.

Disposal statement(s)

P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS number	EC number	Content
BUTYLATED HYDROXYTOLUENE	128-37-0	204-881-4	0.25-0.9%
MINERAL OIL (SOLVENT REFINED)	Not Available	Not Available	>60%
ADDITIVE(S)	Not Available	Not Available	Not Available

4. FIRST AID MEASURES

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4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	No information provided.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Consider gastric lavage with protected airway, administration of activated charcoal.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

Combustible. May evolve carbon oxides and hydrocarbons when heated to decomposition.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

None allocated

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection systems. Store as a Class C2 Combustible Liquid (AS1940). Store between 0°C and 50°C.

7.3 Specific end use(s)

No information provided.

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
2,6-Di-tert-butyl-p-cresol	SWA (AUS)	--	10	--	--
Mineral Oil Mist	SWA (AUS)	--	5	--	--

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

- Eye/Face** Wear splash-proof goggles.
- Hand** Wear PVC or rubber gloves. With prolonged use, wear viton (R) or nitrile gloves.
- Body** When using large quantities or where heavy contamination is likely, wear coveralls. With prolonged use, wear coveralls.
- Respiratory** Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	LIGHT YELLOW LIQUID
Odour	CHARACTERISTIC MINERAL OIL ODOUR
Odour Threshold	NOT AVAILABLE
pH	NOT AVAILABLE
Melting Point	NOT AVAILABLE
Boiling Point	> 280°C
Flash Point	173°C (oc)
Evaporation Rate	NOT AVAILABLE
Flammability	CLASS C2 COMBUSTIBLE
Upper Explosion Limit	10 %
Lower Explosion Limit	1 %
Vapour Pressure	< 0.5 Pa @ 20°C
Vapour Density	> 1 (Air = 1)
Solubility (water)	INSOLUBLE
Partition Coefficient	> 6 (n-Octanol/Water)
Autoignition Temperature	> 320°C
Decomposition Temperature	NOT AVAILABLE
Viscosity	Typical 10 mm ² /s @ 40°C
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE
Specific Gravity	NOT AVAILABLE

9.2 Other information

% Volatiles	NOT AVAILABLE
Density	875 kg/m ³ @ 15°C
Pour Point	-60°C

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10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	This product is expected to be of low toxicity. Under normal conditions of use, adverse health effects are not anticipated.
Skin	Not classified as a skin irritant. Prolonged or repeated contact may result in mild irritation, rash and dermatitis.
Eye	Not classified as an eye irritant. Contact may cause mild irritation and lacrimation.
Sensitization	This product is not known to be a skin or respiratory sensitiser.
Mutagenicity	This product is not classified as a mutagen.
Carcinogenicity	Highly refined mineral oils are not classifiable as to its carcinogenicity in humans (IARC Group 3).
Reproductive	This product is not classified as a reproductive toxin.
STOT - single exposure	Not classified as causing organ effects from single exposure.
STOT - repeated exposure	Not expected to cause organ effects from repeated exposure.
Aspiration	This product is not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

This product can float on water, restricting oxygen exchange with possible asphyxiation of aquatic life.

12.2 Persistence and degradability

Expected to be inherently biodegradable.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

Low solubility and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

12.5 Results of PBT and vPvB assessment

No information provided.

12.6 Other adverse effects

No information provided.

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13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Reuse where possible or return to manufacturer/supplier. May be recycled. Do not release to drains or waterways. Contact the manufacturer/supplier for additional information (if required).

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	None Allocated	None Allocated	None Allocated
14.2 UN proper shipping name	None Allocated	None Allocated	None Allocated
14.3 Transport hazard classes			
DG Class	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
14.4 Packing group	None Allocated	None Allocated	None Allocated
14.5 Environmental hazards		None Allocated	
14.6 Special precautions for user			
Hazchem Code	None Allocated		

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications None allocated

Risk phrases None allocated

Safety phrases None allocated

Inventory listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information MINERAL OILS - SOLVENT REFINED: Animal experiments and human experience have not shown cancer risks when handling solvent refined mineral oils, unlike non refined mineral oils.
CLEANING MINERAL OIL CONTAMINATED CLOTHING: Cleaners are advised that when cleaning oil contaminated clothing it is essential that freshly distilled solvent is used for each batch, including final rinse, as even filtered solvent will leave oil residues.

MINERAL OILS - USED: Used mineral oils in engine crankcases and other high temperature/high stress environments may contain potentially harmful residues, some of which have been shown to cause irreversible skin effects, including cancer. Prolonged and repeated inhalation of mists associated with used mineral oils may result in pulmonary fibrosis.

MINERAL OILS - INJECTION: Where high pressure applications are used the risk of accidental injection under the skin exists and may result in an extremely painful and serious injury requiring immediate medical attention. Depending on the pressure used, mineral oils may be injected a considerable distance below the skin and may cause permanent tissue damage. SEEK IMMEDIATE MEDICAL ATTENTION. EXERCISE EXTREME CARE WHEN USING HIGH PRESSURE EQUIPMENT.

HEALTH EFFECTS FROM EXPOSURE:

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It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

COLOUR RATING SYSTEM: RMT has assigned all ChemAlert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all ChemAlert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report Status

This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by

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any person as a consequence of their reliance on the information contained in this ChemAlert report.

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End of Report