

Material Safety Data Sheet

DUAL PURPOSE Kerosine

Infosafe No. 8AET6 **Issue Date** May 2006 **Status** ISSUED by SHELL

Classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name DUAL PURPOSE Kerosine
Product Code 9137
Product Use Fuel for aviation turbine engines fitted to aircraft.
Company Name SHELL COMPANY OF AUSTRALIA LTD. (ABN 46 004 610 459)
Address Level 1, 8 Redfern Road Hawthorn East
VIC 3123
Emergency Tel. 1800 651 818
Telephone Number/Fax Tel: 1300 655 555
Fax: 1300 658 294

Other Names	Name	Product Code
	DPK	
	Kerosine	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion	Hazard	R	Phrase
	Kerosine	8008-20-6	100 %	Xn		R65

3. HAZARDS IDENTIFICATION

	Flammable.
	Irritating to skin.
	Harmful: may cause lung damage if swallowed.
	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Chronic Effects	Prolonged or repeated skin contact may cause defatting leading to dermatitis.
Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion	Harmful: may cause lung damage if swallowed. Ingestion of this product will irritate the gastric tract causing nausea and vomiting. Aspiration into the lungs may result in chemical pneumonitis.
Skin	Irritating to skin resulting in redness and itching.
Eye	May cause irritation to eyes. Symptoms may include redness, tearing, stinging and blurred vision.

4. FIRST AID MEASURES

Inhalation	Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.
Ingestion	If swallowed, do not induce vomiting, give a glass of water and seek medical advice.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Eye wash station, safety shower and normal washroom facilities.
Advice to Doctor	Treat symptomatically. .

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use carbon dioxide, dry chemical, and foam or water mist.
Specific Hazards	This product is flammable. Keep storage tanks, pipelines, fire-exposed surfaces etc cool with water spray. Shut off any leak if safe to do so and remove sources of re-ignition. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.
Hazardous Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Precautions in connection with Fire	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.
Flash Point	~40°C
Ignition	>220°C

Temperature
Flammable
Limits UEL ~6 %v/v
Flammable
Limits LEL ~1 %v/v

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Handling Open containers cautiously as contents may be under pressure. Use only in a well ventilated area. DO NOT store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. Do not smoke. When dealing with large quantities, repeated or prolonged exposure without protection should be prevented in order to lessen the possibility of disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Storage Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Always keep in containers made of the same material as the supply container. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not stack more than 3 pallets high. 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. In the interest of air safety, aviation fuels are subject to strict quality requirements and product integrity is of paramount importance. Precautions should be taken to avoid water coming into contact with aviation fuels.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National No exposure standards have been established for this material by

Exposure Standards	the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. 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.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable work wear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.
Eng. Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:1997 : Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.
Biological Limit Values	No biological limit allocated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear and Bright, blue coloured liquid.
Odour	Kerosine odour.
Melting Point	Not available.
Boiling Point	Initial boiling point: ~150°C Final boiling point: ~325°C
Solubility in Water	Negligible.
Specific Gravity (H₂O=1)	0.79 (15°C)
pH Value	Not available.
Vapour Pressure	Typical 6 kPa (40°C)
Vapour Density (Air=1)	>5.0
Volatile	100%

Component
Flash Point ~40°C
Ignition Temperature >220°C
Flammable Limits LEL ~1 %v/v
Flammable Limits UEL ~6 %v/v

10. STABILITY AND REACTIVITY

Stability Stable under normal use conditons.
Hazardous Polymerization Will not occur.
Materials to Avoid Strong oxidizing agents.
Hazardous Decomposition Products None known.
Conditions to Avoid Heat, direct sunlight, open flames or other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion Harmful: may cause lung damage if swallowed. Ingestion of this product will irritate the gastric tract causing nausea and vomiting. Aspiration into the lungs may result in chemical pneumonitis.
Skin Irritating to skin resulting in redness and itching.
Eye May cause irritation to eyes. Symptoms may include redness, tearing, stinging and blurred vision.
Chronic Effects Prolonged or repeated skin contact may cause defatting leading to dermatitis.

12. ECOLOGICAL INFORMATION

Environment Protection Avoid contaminating waterways.
Mobility No data is available for this material.
Persistence / Degradability No data is available for this material.
Ecotoxicity No data is available for this material.

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to federal, EPA and state regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers

must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

14. TRANSPORT INFORMATION

This material is classified as a Class 3 (Flammable Liquid) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following:

- Class 1, Explosive
- Class 2.1, Flammable Gas, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gas
- Class 4.2, Spontaneously Combustible Substance
- Class 5.1, Oxidising Agent
- Class 5.2, Organic Peroxide
- Class 6, Toxic and Infectious Substances, if the Class 3 dangerous goods are nitromethane.
- Class 7, Radioactive Substance

U.N. Number 1863
Proper Shipping Name FUEL, AVIATION, TURBINE ENGINE
DG Class 3
Hazchem Code 3[Y]E
Packaging Method 3.8.3RT1
Packing Group II
EPG Number 3A1
IERG Number 14

15. REGULATORY INFORMATION

Risk Phrase

R10 Flammable.
R38 Irritating to skin.
R65 Harmful: may cause lung damage if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase

S2 Keep out of reach of children.
S24 Avoid contact with skin.
S43 In case of fire, use foam, dry agent (carbon dioxide, dry chemical powder)
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Poisons

Schedule

S5

Hazard

Category

Harmful, Irritant, Dangerous for the environment

16. OTHER INFORMATION

Contact CONTACT FOR QENOS PTY LTD:
Person/Point Qenos Botany: Shift Team Leader Ph: (02) 8336 1500
Qenos Altona:
After Hours: Shift Team Leader Ph: (03) 9258 7333
Business Hours: SH&E Dept Ph: (03) 9258 7333
Fax: (03) 9360 9027

SDS History MSDS reviewed: April 2006.

Poisons
Schedule S5

Hazard
Category Harmful,Irritant,Dangerous for the environment
This product must not be used in applications other than those recommended in Section1, without first seeking the advice of the supplier.

End of MSDS
