Material Safety Data Sheet

Infosafe No.	ACQRY	Issue Date : May 2004	ISSUED by BPNZ

Product Name : **Jet A-1 containing FSII (Fuel System Icing Inhibitor)**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	Jet A-1 containing FSII (Fuel System Icing Inhibitor)
Product Code	JETFSII
Product Use	Aviation turbine fuel For specific application advice see appropriate Technical Data Sheet or consult your BP representative
Company Name	BP Oil New Zealand Ltd
Address	20 Customs House Quay, Wellington 1, New Zealand
Telephone Number/Fax	Tel: 64 4 495 5000 Fax: 64 4 495 5400
Other Information	Emergency Tel: 0800 154 666 (Australian Centre of Occupational Health and Safety) National Poisons Centre telephone no. (24 hours): 0800 POISON (0800 764 766) MSDS website http://www.bp.co.nz/business/products/safetydata.html

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition	A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range C9 through C16. Kerosene (petroleum), CAS No. 8008-20-6 Contains small amounts of proprietary performance addives. Hazardous Components Kerosene (petroleum), CAS No. 8008-20-6 Diethylene glycol monomethyl ether (DGME) CAS No. 111-77-3; at concentrations higher than 5% DMGE is classified as a reproductive toxicity category 2 material having a possible risk of harm to the unborn child. Diethylene glycol monomethyl ether (DGME) is present at 0.10 to 0.15 % as an icing inhibitor. This potentially hazardous material can reach high concentrations in water collected from aircraft tanks as a result of condensation.

3. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433.

Flammable liquid.
As the material has a low flash point, any spillage should be considered a potential fire hazard.
Spray applications increase the fire, and possible explosion, hazard.
Use in hot climates further increases this hazard.
This product may be aspirated on swallowing and may cause lung damage. Product may be irritating to the skin.

4. FIRST AID MEASURES

Inhalation	If fumes are inhaled, the patient should be removed to fresh air and if recovery is not immediate, medical assistance must be called without delay. If breathing has failed, respiration must be assisted, preferably by the mouth-to-mouth method (expired air resuscitation).
Ingestion	If swallowed, do not induce vomiting, give a glass of water and contact a doctor or the Poisons Information Centre.
Skin	Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.
Eye	Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.
Advice to Doctor	Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac disrhythmias.

5. FIRE FIGHTING MEASURES

For major fires, call the Fire Brigade immediately. Ensure an escape path is always available from any fire. There is a risk of flashback if sparks or hot surfaces ignite vapour.
In case of fire, use foam, dry chemical, carbon dioxide, vaporising liquid or water delivered as a fine spray. DO NOT USE water jets.
Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.
Water may be used to cool nearby heat exposed areas/objects/packages.
Avoid spraying directly into storage containers because of the danger of boil-over.

Hazardous Combustion Products

Toxic fumes may be evolved on burning or exposure to heat.
See Stability and Reactivity, Section 10 of this MATERIAL SAFETY DATA Sheet.

6. ACCIDENTAL RELEASE MEASURES

Any spillage should be regarded as a potential fire risk.
In the event of spillage, remove all sources of ignition and ensure good ventilation.
Wear protective equipment. (See Exposure Controls/Personal Protection, Section 8 of this MATERIAL SAFETY DATA SHEET for details)
Contain and recover liquid using sand or other suitable inert absorbent material.
It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage which may be reasonably anticipated.
Spilled material may make surfaces slippery. Clean up spilled material immediately.
Recovery of large spillages should be effected by specialist personnel.
Protect drains from potential spills to minimise contamination.
Do not wash product into drainage system.
Vapour is heavier than air and may travel to remote sources of ignition (eg. along drainage systems, in basements, etc.).
If spillage has occurred in a confined space, ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry.
In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface.
Protect environmentally sensitive areas and water supplies.
In case of spillage at sea, approved dispersants may be used where authorised by the appropriate regulatory authority. In the event of spillages, contact the appropriate authorities. Regular surveillance on the location of the spillage should be maintained.

7. HANDLING AND STORAGE

Handling

Ensure good ventilation and avoid, as far as reasonably practicable, the inhalation and contact with vapours, mists or fumes which may be generated during use. If such vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.
Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate.
Avoid skin contact. Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times.
Do not siphon product by mouth. Keep out of reach of children.
Whilst using, do not eat, drink or smoke. Wash hands thoroughly after contact.
Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets.
Take all necessary precautions against accidental spillage into soil or water.

Storage

Store and dispense only in well ventilated areas away from heat and sources of ignition.
Store and use only in equipment/containers designed for use with the product.
Containers must be properly labelled and kept closed when not in use.
Do not remove warning labels from containers. Empty packages may retain residual product; retain hazard warning labels on empty packages as a guide to their safe handling, storage and disposal.
Do not enter storage tanks without breathing apparatus unless the tank has

	been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations below 1% of the lower flammability limit and an oxygen concentration of at least 20% by volume. Always have sufficient personnel standing by outside the tank with appropriate breathing apparatus and equipment to effect a quick rescue.
Other Information	Fire Prevention Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards, even at temperatures below the normal flash point. Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electricity discharge and all ignition sources during filling, ullaging and sampling from storage tanks. Hoses should be electrically continuous. Ensure equipment used is properly earthed or bonded to the tank structure. Will present a flammability hazard if heated above the flash point but bulk liquids at normal storage temperatures present a low fire hazard. If fuel contacts hot surfaces, or leaks from high pressure fuel pipes, the vapour and/or mists generated will create a flammability or explosion hazard. Product soaked rags, paper or material used to absorb spillages, represent a fire hazard and should not be allowed to accumulate. Dispose of safely after use. Empty containers represent a fire hazard as they may contain remaining flammable residues and vapour. Do not weld, heat or drill the container. Do not introduce an ignition source. Heating may cause an explosion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Ensure good ventilation. Avoid, as far as reasonably practicable, inhalation of vapour, mists or fumes generated during use. If vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.
Respiratory Protection	Respiratory protection is normally unnecessary, provided the concentration of vapour, mists or fumes is adequately controlled. If operations are such that the excessive generation and inhalation of vapour mist or fume may be anticipated, then suitable approved respiratory equipment should be worn. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.
Body Protection	Wear face visor or goggles in circumstances where eye contact can accidentally occur. If skin contact is likely, wear impervious protective clothing and/or gloves. Change heavily contaminated clothing as soon as reasonably practicable and launder before re-use. Wash any contaminated underlying skin with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odour	Mild
Boiling Point	150 - 280°C Test Method: ASTM D 86
Vapour Pressure	< 0.3 kPa @20°C Test Method: ASTM D 323
Physical State	Mobile Liquid
Colour	Pale Yellow/straw
Density	0.80 kg/L @15°C Test Method: ASTM D 1298
Flash Point	> 38°C (PMC) Test Method: ASTM D 93
Flammable Limits LEL	0.7%
Flammable Limits UEL	5.0%
Other Information	Grades: Jet A-1 Containing FS II

10. STABILITY AND REACTIVITY

Hazardous Polymerization	Hazardous polymerisation reactions will not occur.

Materials to Avoid	Avoid contact with strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions. Incomplete combustion/thermal decomposition will generate smoke, carbon dioxide and hazardous gases, which will include carbon monoxide.
Conditions to Avoid	Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use. This material is combustible.

11. TOXICOLOGICAL INFORMATION

Inhalation	May cause irritation to eyes, nose and throat due to exposure to high concentrations of vapour, mists or fumes.
Ingestion	Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. Aspiration into the lungs may result in chemical pneumonitis.
Skin	Likely to cause skin irritation.
Eye	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

12. ECOLOGICAL INFORMATION

Mobility	Spillages may penetrate the soil causing ground water contamination.
Persistence / Degradability	This product is inherently biodegradable.
Bioaccumulation	There is no evidence to suggest bioaccumulation will occur.
Acute Toxicity - Other Organisms	May be harmful to aquatic organisms. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. DISPOSAL CONSIDERATIONS

Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations, or if approved, allowed to degrade in situ. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.
Dispose of product and container carefully and responsibly. Do not dispose of near ponds, ditches, down drains or onto soil.
Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packages and should not be removed.

14. TRANSPORT INFORMATION

This material is classified as a Class 3 - Flammable Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.
Must not be loaded in the same freight container or on the same vehicle with:
- (Class 1) Explosives
- (Class 2.1) Flammable gases
- (Class 2.3) Toxic gases
- (Class 4.2) Spontaneously combustible substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides or
- (Class 7) Radioactive materials unless specifically exempted.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:
- (Class 4.3) Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:
- (Class 4.2) Spontaneously combustible substances
- (Class 4.3) Dangerous when wet substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides

U.N. Number	1863
Proper Shipping Name	FUEL, AVIATION TURBINE ENGINE

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Classified as hazardous

DG Class	3
Hazchem Code	3[Y]
Packaging Method	3.8.3RT1
Packing Group	III
Storage and Transport	Marine Transport Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods (IMDG) Code for transport by sea. UN-No : 1863 Class : 3 Flammable Liquid Packing group : III Proper Shipping Name : FUEL, AVIATION TURBINE ENGINE EmS : 3-07 Stowage and Segregation Category : A Air Transport Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air. UN-No : 1863 Class : 3 Flammable Liquid Packing group : III Proper Shipping Name : FUEL, AVIATION TURBINE ENGINE
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

This product is classified as a 3.1C - Flammable Liquid: Medium Hazard, according to the Hazardous Substances (Classification) Regulations 2001.

This product is classified as a 6.1E - Substance that is mild acutely toxic, according to the Hazardous Substances (Classification) Regulations 2001.

This product is classified as a 6.3B - Substance that is mildly irritating to the skin, according to the Hazardous Substances (Classification) Regulations 2001.

This product is classified as a 9.1B - Substance that is ecotoxic in the aquatic environment, according to the Hazardous Substances (Classification) Regulations 2001.

16. OTHER INFORMATION

Contact Person/Point

This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the date specified above. We have reviewed any information contained herein which we received from sources outside the BP Group of Companies. However, no warranty or representation, expressed or implied is made as to the accuracy or completeness of the data and information contained in this data sheet.
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