Safety Data Sheet

Hazardous, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: RENOLIN AIRCRAFT AMG 10

Synonyms
205L

Product Code
602302885

Recommended use: Hydraulic fluid.

Supplier: Fuchs Lubricants (Australasia) Pty Ltd
Street Address: Head Office
49 McIntyre Road
Sunshine VIC 3020
Australia

Telephone: **+61 3 9300 6400 (Australia)**
+64 6 828 3255 (New Zealand)
Website: www.fuchs.com.au
Email: sds.au@fuchs.com

Emergency Telephone number: **Australia 1800 638 556 (24hr)**
New Zealand 0800 154 166 (24hr)

2. HAZARDS IDENTIFICATION

This material is hazardous according to the criteria of Safe Work Australia GHS 7.

Signal Word
Danger

Hazard Classifications
Acute Toxicity - Inhalation - Category 4
Skin Corrosion/Irritation - Category 2
Aspiration Hazard - Category 1
Chronic Hazard to the Aquatic Environment - Category 2

Hazard Statements

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Prevention Precautionary Statements

P261	Avoid breathing mist, vapours or spray.
P264	Wash hands, face and all exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing including eye/face protection.

Response Precautionary Statements

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331	Do NOT induce vomiting.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse
P391	Collect spillage.

Storage Precautionary Statement

P405	Store locked up.

Disposal Precautionary Statement

P501	Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule: Not Applicable

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 9

Australian Special Provisions; AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code (ADG 07) when transported by road or rail in;

(a) packagings that do not incorporate a receptacle exceeding 500 Kg (L); or
(b) IBCs.

Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Mixture containing severely refined base oils and additives.		%
Base oil	64742-46-7	>50 %
Base oil, low viscous	64742-79-6	2.5-10 %
Phenolic antioxidant	128-37-0	<2.5 %
Ester derivative	68937-41-7	<1 %
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Skin Contact: If skin or hair contact occurs, immediately remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a Doctor; or for 15 minutes and transport to Doctor or Hospital.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible

precaution to seek medical advice.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Immediately call Poisons Centre or Doctor.

PPE for First Aiders: Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: •3Z

Suitable extinguishing media: If material is involved in a fire use alcohol resistant foam or dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Combustible liquid.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No: 47

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

This material is classified as a Class 9 Miscellaneous Dangerous Good as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Phenolic antioxidant	-	10	-	-	-
Oil mist, refined mineral	-	5	-	-	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well-ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Colour: Red
Odour: Characteristic

Solubility in water: Insoluble

Density:	0.87 g/cm3 @ 20°C
Relative Vapour Density (air=1):	N Av
Vapour Pressure:	N Av
Flash Point (°C):	94
Flammability Limits (%):	N Av
Pour Point/Range (°C):	N Av
Boiling Point/Range (°C):	N Av
pH:	N App
Viscosity:	14.1 mm2/s @ 40°C
Total VOC (g/Litre):	N Av

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Harmful if inhaled. Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin will result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema.

Eye contact: May be an eye irritant.

Acute toxicity

Inhalation: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): $10.0 < LC_{50} \leq 20.0$ mg/L for vapours or $1.0 < LC_{50} \leq 5.0$ mg/L for dust and mist.

Product:
ATEmix: 111.11 mg/l Vapour
ATEmix: 2.48 mg/l Dust and mist

Specified substance(s)
Base oil LC50 (Rat): >1.78 mg/l Dust and mist

Skin contact: This material has been classified as not hazardous for acute dermal exposure. Acute toxicity estimate (based on ingredients): $LD_{50} > 2{,}000$ mg/Kg bw

Specified substance(s)
Base oil - LD50 (Rabbit): >5000 mg/kg
Ester derivative - LD50 (Rabbit): >10000 mg/kg
Phenolic antioxidant - LD50 (Rat): >5000 mg/kg (OECD 402)

Ingestion: This material has been classified as not hazardous for acute ingestion exposure. Acute toxicity estimate (based on ingredients): LD_{50} > 2,000 mg/Kg bw

Specified substance(s)
Base oil - LD50 (Rat): >5000 mg/kg
Phenolic antioxidant - LD50 (Rat): >2930 mg/kg (OECD 401)
Ester derivative - LD50 (Rat): >5000 mg/kg

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as a Category 2 Hazard (reversible effects to skin).

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Specified substance(s)
Phenolic antioxidant - No sensitising effect (guinea pig) (OECD 406)

Aspiration hazard: This material has been classified as Aspiration Hazard - Category 1

Specific target organ toxicity (single exposure): This material has been classified as not a specific hazard to target organs by a single exposure.

Chronic Toxicity

Mutagenicity: This material has been classified as not a mutagen.

Carcinogenicity: This material has been classified as not a carcinogen.

Reproductive toxicity (including via lactation): This material has been classified as not a reproductive toxicant.

Specific target organ toxicity (repeat exposure): This material has been classified as not a specific hazard to target organs by repeat exposure.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as not hazardous for acute aquatic exposure. Acute toxicity estimate (based on ingredients): > 100 mg/L

Specified substance(s)
Phenolic antioxidant - 48hr EC50 (Water flea): 0.61 mg/l (OECD 202)
Ester derivative - 48hr EC50 (Water flea): 2.44 mg/l
Base oil - 96hr LC50 (Fish): 1.13 - 65 mg/l
Ester derivative - 96hr LC50 (Fish): 1.6 mg/L

Long-term aquatic hazard: This material has been classified as a Category Chronic 2 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): 1 - 10 mg/L, where the substance is not rapidly degradable and/or BCF ≥ 500 and/or log K_{ow} ≥ 4.

Specified substance(s)
Base oil - NOEL (Fish, 14 d): 0.069 mg/l
Base oil - NOEL (Water Flea, 21 d): 0.163 mg/l

Phenolic antioxidant - NOEC (Water Flea, 21 d): >0.39 mg/l

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Biodegradation
Specified substance(s)
Phenolic antioxidant - 30% (OECD 302C) Not readily degradable.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Australian Special Provisions; AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code (ADG 07) when transported by road or rail in;
(c) packagings that do not incorporate a receptacle exceeding 500 Kg (L); or
(d) IBCs.

UN No:	3082
Dangerous Goods Class:	9
Packing Group:	III
Hazchem Code:	•3Z
Emergency Response Guide No:	47
Limited Quantities	5 L
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Base oil)

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1). Note 1: Materials that are fire risks are incompatible with oxidising agents (Class 5.1) or organic peroxides (Class 5.2). Exemptions may apply.

MARINE TRANSPORT
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. This material is classified as a Marine Pollutant (P) according to the International Maritime Dangerous Goods Code.

UN No:	3082
Dangerous Goods Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Base oil)

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:	3082
Dangerous Goods Class:	9
Packing Group:	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Base oil)

15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth): Not Applicable.

AICIS Status: All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).

NZ EPA Status: Not all components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

16. OTHER INFORMATION

Reason for issue: First Issue

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.