

SAFETY DATA SHEET

LIGHT FUEL OIL

Infosafe No.: LQAXT
ISSUED Date : 16/12/2021
ISSUED by: SOUTHERN OIL REFINING PTY
LTD

Section 1 - Identification

Product Identifier

LIGHT FUEL OIL

Company Name

SOUTHERN OIL REFINING PTY LTD

Address

42 Lewington Street Bomen
NSW 2650 AUSTRALIA

Telephone/Fax Number

Tel: +61 2 5942 3700

Fax: +61 2 6925 8766

Emergency Phone Number

+61 2 5942 3700 (24/7)

Recommended use of the chemical and restrictions on use

Fuel oil, fuel oil blend component.

Other Names

Name
LFO, DISTILLATE FUEL, CRUDE LFO

Additional Information

NORTHERN OIL REFINERIES PTY LTD

Address 39 Guerassimoff Road

Yarwun QLD 4694

Australia

Telephone/Fax Number

Tel: +61 7 4975 2666

Fax: +61 7 4975 2677

Emergency number: +61 7 4975 2666

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Flammable liquids: Category 2

Acute toxicity: Category 4 - Inhalation

Carcinogenicity: Category 1B

Aspiration hazard: Category 1

Reproductive toxicity: Category 2
Specific target organ toxicity (repeated exposure): Category 2
Specific target organ toxicity (single exposure): Category 3 (Narcotic)

Signal Word (s)

DANGER

Hazard Statement (s)

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Pictogram (s)

Exclamation mark, Health hazard, Flame



Precautionary Statement – Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Precautionary Statement – Response

P308+P313 IF exposed or concerned: Get medical advice/attention.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P312 Call a POISON CENTER/doctor if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P370+P378 In case of fire: Use foam, dry chemical powder, carbon dioxide, water spray or fog to extinguish.

Precautionary Statement – Storage

P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Precautionary Statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Gas oils (petroleum), heavy atmospheric	68783-08-4	100 %

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. 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

Wash affected area thoroughly with soap and water. If symptoms develop 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 (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Use foam, dry chemical powder, carbon dioxide, water spray or fog to extinguish.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

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

Specific hazards arising from the chemical

Highly flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.

Hazchem Code

•3YE

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

Section 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.

Section 7 - Handling and Storage

Precautions for Safe Handling

Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire-resistant containers. Open containers carefully as they may be under pressure. Keep containers tightly closed. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities. Avoid exposure. Do not handle until all safety precautions have been read and understood. It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

Conditions for safe storage, including any incompatibilities

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.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Oil mist, mineral

TWA: 5 mg/m³

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.

Biological Monitoring

No biological limit allocated.

Control Banding

Not available

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 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 and Face 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 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as PVC. 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.

Thermal Hazards

No further relevant information available.

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.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Dark amber highly flammable liquid
Colour	Dark amber	Odour	Strong sulphurous odour
Melting Point	<-3°C	Boiling Point	Not available
Decomposition Temperature	Not available	Solubility in Water	Does not mix with water.
pH	Not available	Vapour Pressure	Not available
Relative Vapour Density (Air=1)	Not available	Evaporation Rate	Not available
Odour Threshold	Not available	Viscosity	1-2 cSt (40°C)(typical)
Partition Coefficient: n-octanol/water (log value)	Not available	Density	0.85 kg/l (15°C) (typical)
Flash Point	<23°C	Flammability	Highly flammable liquid
Auto-Ignition Temperature	Not available	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available		

Section 10 - Stability and Reactivity

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

Not available

Conditions to Avoid

Heat, open flames and other sources of ignition.

Incompatible Materials

Oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes, smoke and gases including: carbon dioxide and carbon monoxide.

Reactivity and Stability

Reacts with incompatible materials.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Toxicology Information

Toxicity data available for this material is given below.

Acute Toxicity - Oral

LD50 (rat); 6,035 mg/kg

Acute Toxicity - Dermal

LD50: >2000 mg/kg

Acute Toxicity - Inhalation

LC50 (rat): >0.32 mg/L/4h

Ingestion

May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause severe pulmonary injury that may lead to death. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

Harmful if inhaled. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system. May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Skin Corrosion/Irritation

Skin: moderate irritation

Skin: no adverse effect observed (not irritating)

Eye

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

Serious Eye Damage/Irritation

Eye: moderate irritation

Eye: no adverse effect observed (not irritating)

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

May cause cancer. Classified as a Known or presumed human carcinogen.

Mineral oils, untreated or mildly treated is listed as a Group 1: Carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Petroleum refining (occupational exposures) is listed as a Group 2A: Probably carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Fuel oils, distillate (light) is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Suspected of damaging fertility or the unborn child. Classified as a suspected human reproductive or developmental toxicant.

STOT - Single Exposure

May cause drowsiness or dizziness.

STOT - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Section 12 - Ecological Information

Ecotoxicity

Ecological data available for this material is given below.

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

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

Acute Toxicity - Fish

NOEC(ECx) (Fish): 5.6mg/l/96h

Acute Toxicity - Daphnia

EC50 (Algae or other aquatic plants): 160mg/l/96h

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Advise flammable nature. Empty containers may contain flammable residues. Do not cut, puncture or weld on or near containers. 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. To minimise personal exposure to the chemical, refer to Section 8—Exposure controls and personal protection.

Section 14 - Transport Information

Transport Information**Road and Rail Transport:**

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1: Explosives

- Division 2.1: Flammable Gases.

(Division 2.1 and Class 3 are incompatible in transport if both are in tanks or other receptacles with a capacity individually exceeding 500 L)

- Division 2.3: Toxic Gases

- Division 4.2: Spontaneously Combustible Substances

- Division 5.1: Oxidising substances

- Division 5.2: Organic Peroxides

- Class 6: Toxic or Infectious Substances

(where the flammable liquid is nitromethane)

- Class 7: Radioactive materials unless specifically exempted

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: 3

UN No: 1993

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S (Gas oils (petroleum), heavy atmospheric)

Packing Group: II

EMS : F-E, S-E

Special Provisions: 274

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.

UN No: 1993

Proper Shipping Name: Flammable liquid, n.o.s. (Gas oils (petroleum), heavy atmospheric)

Class: 3

Packing Group: II

Packaging Instructions (passenger & cargo): 353

Packaging Instructions (cargo only): 364

Hazard Label: Flammable liquid

Special provisions: A3

ADG U.N. Number

1993

ADG Proper Shipping Name

FLAMMABLE LIQUID, N.O.S.(Gas oils (petroleum), heavy atmospheric)

ADG Transport Hazard Class

3

ADG Packing Group

II

Hazchem Code

•3YE

IERG Number

14

Special Precautions for User

Not available

IMDG Marine pollutant

No

Transport in Bulk

Not available

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). (exempted)

Poisons Schedule

Not Scheduled

Australia (AICS/AIIC)

All components of this product are listed on the Inventory or exempted.

Montreal Protocol

Not listed

Stockholm Convention

Not listed

Rotterdam Convention

Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not available

Agricultural and Veterinary Chemicals Act 1994

Not available

Basel Convention

Not available

Section 16 - Any Other Relevant Information

Date of Preparation

SDS amended: August 2023, Section 1 - IDENTIFICATION, Section 5 - FIREFIGHTING MEASURES, Section 9 PHYSICAL AND CHEMICAL PROPERTIES, Section 14 TRANSPORT INFORMATION.

SDS created: December 2021

Version Number

1.1

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS

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