

KEROSENE

1. IDENTIFICATION

GHS Product Identifier

KEROSENE

Company Name

LIBERTY OIL AUSTRALIA PTY LTD (ABN 34 114 544 437)

Address

381 Tooronga Road
Hawthorn East
Victoria 3123 Australia

Telephone/Fax Number

Tel: +61 (0)3 8530 3500
Fax: +61 0(3) 9822 1562

Emergency phone number

Poisons Information Centre: 13 11 26 (Australia)

Recommended use of the chemical and restrictions on use

Bitumen flux

Other Names

Name	Product Code
HOME KEROSENE	

2. HAZARD 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)

Aspiration Hazard: Category 1

Flammable Liquid: Category 3

Hazardous to the Aquatic Environment - Long-term Hazard: Category 2

Skin Corrosion/Irritation: Category 2

Signal Word(s)

DANGER

Hazard Statement(s)

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H411 Toxic to aquatic life with long lasting effects.

Pictogram(s)

Environment, Exclamation mark, Flame, Health hazard

**Precautionary statement - Prevention**

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash contaminated skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only for extinction.

P391 Collect spillage.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P362 Take off contaminated clothing and wash before reuse.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313 If skin irritation occurs: Get medical advice/attention.

Precautionary statement – Storage

P405 Store locked up.

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

Precautionary statement – Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Kerosene	8008- 20- 6	0- 100 %

Preparation Description

Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C16 range.

Other Information

Contains naphthalene, CAS# 91-20-3. Contains Ethylbenzene, CAS # 100-41-4. Contains Xylene (Mixed Isomers), CAS # 1330-20-7. Contains Cumene, CAS# 98-82-8

Contains Tri-methyl-benzene (all isomers), CAS# 25551-13-7.

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist 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

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye contact

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, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre or doctor at once. (131 126)

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, water spray, fog, dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, oxides of sulphur, unidentified organic and inorganic compounds.

Specific Hazards Arising From The Chemical

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.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protection 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.

Clean-up Methods - Small Spillages

For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Clean-up Methods – Large Spillages

For large liquid spills (>1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

Other Information

Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Maritime spillages should be dealt with using a Shipboard Oil pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use in designated areas with local exhaust ventilation, away from sparks, flames and other ignition sources. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. 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.

Conditions for sale 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.

Product Transfer

Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Keep containers closed when not in use. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that arise from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/s until fill pipe submerged to twice its diameter, then ≤ 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.

Recommended Materials

For containers or container linings use carbon steel and low alloy steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. For container linings the following may also be used: Unplasticized polyvinyl chloride (U-PVC), Fluoropolymers (PTFE), Polyvinylidene fluoride (PVDF), Polyetheretherketone (PEEK), polyamide (PA-11). For seals and gaskets use: Fluoroelastomer (FKM), Viton A, and Viton B, Nitrile butadiene (NBR), Buna-N. For coating (paint) materials use: High build, amine adduct-cured epoxy.

Unsuitable Materials

For container or container linings, examples of materials to avoid are: Polyethylene (PE, HDPE), Polypropylene (PP), Polymethyl methacrylate (PMMA), Acrylonitrile butadiene styrene (ABS). For seals and gaskets, examples of materials to avoid are: Natural rubber (NR), Ethylene Propylene (EPDM), Polychloroprene (CR) - Neoprene, Butyl (IIR), Chlorosulphonated polyethylene (CSM), e.g. Hypalon.

Other Information

Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure standards have been established for this material. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values

No biological limit available.

Appropriate 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 60079.10.1.2009 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 vapour/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 changes for individual circumstances.

Eye 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 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as nitrile gloves (Breakthrough time of > 240 minutes). For incidental contact/splash protection, neoprene, PVC gloves. 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Pale yellow liquid.

Colour

Pale yellow

Odour

Hydrocarbon

Decomposition Temperature

Not available

Melting Point

Not available

Freezing Point

Not available

Boiling Point

90 - 300°C

Solubility in Water

Not available

Specific Gravity

Not available

pH

Not available

Vapour Pressure

1 - 21 kPa at 37.8 °C

Vapour Density (Air=1)

Not available

Evaporation Rate

Not available

Odour Threshold

Not available

Viscosity

Not available

Partition Coefficient: n-octanol/water

Not available

Density

Not available

Flash Point

Not available

Flammability

Flammable

Auto-ignition Temperature

Not available

Flammable Limits - Lower

Not available

Flammable Limits - Upper

Not available

Kinematic Viscosity

1 - 2.5 cSt at 40 °C

Other Information

Electrical conductivity: Low conductivity: < 100 pS/m, the conductivity of this material makes it a static accumulator. A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m. Whether a liquid is non-conductive or semi-conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of the liquid.

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions of storage and handling.

Reactivity and Stability

Reacts with incompatible materials.

Conditions to Avoid

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

Incompatible materials

Strong oxidising agents.

Hazardous Decomposition Products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

Possibility of hazardous reactions

Hazardous decomposition products are not expected to form during normal storage.

Hazardous Polymerization

Not available

Other Information

Sensitivity to Static Discharge: Yes, in certain circumstances product can ignite due to static electricity.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Oral

LD50: (Rat): >2000 mg/kg

Acute Toxicity - Inhalation

LC50: (Rat): >5 mg/l /4 h

Acute Toxicity - Dermal

LD50: (Rabbit): >2000 mg/kg

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, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

Inhalation of product vapours may cause irritation of the nose throat and respiratory system.

Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

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

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

Not considered to be a mutagenic hazard.

Repeated skin contact has resulted in irritation and skin cancer in animals.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Other Information

Information given is based on product data, a knowledge of the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Kidney: caused kidney defects in male rats which are not considered relevant to humans

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Persistence and degradability

Major constituents are expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Mobility

Large volumes may penetrate soil and could contaminate groundwater. Evaporates within a day from water or soil surfaces. Contains volatile constituents. Floats on water.

Bioaccumulative Potential

Contains constituents with the potential to bioaccumulate. Log Kow > =4

Other Adverse Effects

Films formed on water may affect oxygen transfer and damage organisms.

Environmental Protection

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

Acute Toxicity – Fish

NOEC/NOEL expected to be > 0.01 - <= 0.1 mg/l (based on modelled data)

Acute Toxicity – Algae

LL/EL/IL50 > 1 <= 10 mg/l

Acute Toxicity - Other Organisms

LL/EL/IL50 > 1 <=10 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract.

NOEC/NOEL: (Aquatic crustacea: > 0.1 - <=1.0 mg/l)

Other Information

Fuels are typically made from blending several refinery streams. Ecotoxicological studies have been carried out on a variety of hydrocarbon blends and streams but not those containing additives. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

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. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected.

Product Disposal

Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Container Disposal

Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.

14. TRANSPORT INFORMATION

Transport information

Road and Rail Transport (ADG Code):

This material is Dangerous Goods 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 500L.)
- Division 2.3, Toxic Gases
- Division 4.2 Spontaneously Combustible Substances
- Division 5.1 Oxidising Agents and 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.

UN No: 1223

Proper Shipping Name: KEROSENE

Class: 3

Packaging Group: III

EMS No.: F-E, S-E

Special Provision: 363

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: 1223

Proper Shipping Name: Kerosene

Class: 3

Packaging group: III

Label: Flammable Liquid

Packaging Instructions (passenger & cargo): 355

Packaging instructions (cargo only): 366

Special Provision: A324

U.N. Number

1223

UN proper shipping name

KEROSENE

Transport hazard class(es)

3

Packing Group

III

Hazchem Code

3Y

IERG Number

15

IMDG Marine pollutant

Yes

Transport in Bulk

Not available

Special Precautions for User

Not available

Other Information

MARPOL Annex 1 rules apply for bulk shipments by sea.

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.

SUSMP Schedule: Not scheduled. When packed in containers having capacity of greater than 20 litres.

SUSMP Schedule: S5. When packed in containers having capacity of 20 litres or less.

Poisons Schedule

S5

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Reviewed: February 2019

Supersedes: February 2014

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.
 - Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
 - Workplace exposure standards for airborne contaminants, Safe work Australia.
 - American Conference of Industrial Hygienists (ACGIH).
 - Globally Harmonised System for classification and labelling of chemicals.
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END OF SDS