Safety Data Sheet

Hazardous Substance, Dangerous Goods

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

Product name: Sceney's Kerosene

Synonyms: N/A

Recommended use: Solvent, fuel

Supplier: Sceneys
ABN: 37 665 228 222
Street Address: 34 Macquarie Drive
Thomastown VIC 3074
Australia
Telephone: (03) 9311 7477 (Mon-Fri, 9am-3pm, AEST)

Facsimile: (03) 9312 6911

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria for Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.
Kerosene is **classified** as **Dangerous** Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

GHS Classification:

Flammable liquids, category 3
Aspiration hazard, category 1
Skin corrosion/irritation, category 2
Specific target organ toxicity – single exposure, category 3 (narcotic effects)
Aquatic toxicity (chronic), category 2
Aquatic toxicity (acute), category 2

GHS LABEL ELEMENTS

Symbol (s)



Signal Word: Danger

Hazard Statements:

PHYSICAL HAZARDS:
H226: Flammable liquid and vapour.

HEALTH HAZARDS:

H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H336: May cause drowsiness or dizziness

ENVIRONMENTAL HAZARDS
H411: Toxic to aquatic life with long lasting effects
H401: Toxic to aquatic life

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 non-sparking tools
P243: Take precautionary measures against static discharge
P261: Avoid breathing mist, vapours, spray
P271: use only outdoors or in a well-ventilated area
P280: Wear protective gloves, protective clothing eye protection, face protection.
P281: Use personal protection equipment as required.

Response
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P331: Do NOT induce vomiting.
P332 + P313: If skin irritation occurs: Get medical advice/ attention.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P403+P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up

Disposal
P501: Dispose of contents and container to appropriate waste site of reclaimer in accordance with local and national regulations.

Other hazards which do not result in classification
Slightly irritating to respiratory system. Liquid evaporates quickly and can ignite leading to a flash fire, or an explosion in a confined space. Vapour in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature, where vapour concentrations are within the flammability range. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Kerosine may ignite on surfaces at temperatures above auto-ignition temperature.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Description
Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C9 to C16 range. May also contain several additives at <0.1% v/v each. May contain cetane improver (Ethyl Hexyl Nitrate) at <0.2% v/v.

Hazardous components

Chemical Identity	CAS	Concentration
Kerosene	8008-20-6	>99%

Additional Information

Contains naphthalene, CAS # 91-20-3. Dyes and markers can be used to indicate tax status and prevent fraud.

SECTION 4: FIRST AID MEASURES

Information:
Check the vital functions. Unconscious: Maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: preform resuscitation. Victim conscious with labored breathing: half seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

Ingestion:	If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give a glass of water. Seek immediate medical assistance.
Eyes:	Immediately flush eyes with large amounts of water for at least 15minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.
Skin:	Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest facility for additional treatment.
Inhaled:	Remove victim from area of 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. Seek medical advice if effects persist.
First Aid Facilities:	Eye wash fountains and safety showers should be available for emergency use.
Advice to Doctor:	Treat Symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media:	Foam, water spray or 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.
Special protective precautions and equipment for fire fighters:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Oxides of sulphur. Unidentified organic and inorganic compounds. Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Flammable vapours may be present even at temperatures below the flash point. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Other advice	Flammable liquid. May form flammable vapour mixtures with air. Vapour may travel a considerable distance to source of ignition and flash back. Burning liquid may float on water. Keep adjacent containers cool by spraying with water. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations. Evacuate the area of all nonessential personnel. Ventilate contaminated area thoroughly. Take precautionary measures against static discharges.

Emergency procedures/Environmental precautions:

Take measures to minimise the effects on groundwater.
Contain residual material at affected sites to prevent material from entering drains (sewers), ditches, and waterways. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Do not breathe fumes, vapour. Do not operate electrical equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area and evacuate all personnel. Attempt to disperse the gas or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas meter.

Methods and material for containment and/or cleaning up
Take precautionary measures against static discharges. 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. 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.

SECTION 7: HANDLING AND STORAGE

General Precautions:
Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Air-dry contaminated clothing in a well-ventilated area before laundering. Prevent spillages. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Never siphon by mouth. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse.
Maintenance and Fuelling Activities - Avoid inhalation of vapours and contact with skin.

Precautions for safe handling:
Avoid inhaling vapour and/or mists. Avoid prolonged or repeated contact with skin. When using do not eat or drink. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Earth all equipment. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Conditions for safe storage, including any incompatibilities:
Drum and small container storage: Drums should be stacked to a maximum of 3 high. Use properly labelled and closeable containers. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked(bunded). Locate tanks away from heat and other sources of ignition. Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Keep container tightly closed and in a cool, well ventilated place. Keep in a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product. Keep in a bonded area with a sealed (low permeability) floor, to provide containment against spillage. Prevent ingress of water.

Recommended Materials
For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE) and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B.

Unsuitable Materials:
Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.

Container Advice:

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.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

Material	Source	Type	ppm	mg/m^3	Notation
Naphthalene	ACGIH	TWA	10		
	ACGIH	STEL	15		
	ACGIH	SKIN_DES			Can be absorbed through the skin
	SG OEL	TWA	10	52	
	SG OEL	TWA	15	79	
Kerosene	ACGIH	TWA		200	
	ACGIH	SKIN_DES			Can be absorbed through the skin

Biological Exposure Index (BEI):

No biological limit allocated

ENGINEERING CONTROLS

Ventilation: Provide sufficient ventilation to keep airborne levels below the exposure limits. 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.

Appropriate Engineering Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Use sealed systems as far as possible. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use.

PERSONAL PROTECTION

Hand Protection Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin 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.

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.

Respiratory Protection:	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [Type A boiling point > 65°C (149°F)] meeting EN14387. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.
Body protection:	Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood. Wear antistatic and flame retardant clothing.
Smoking & Other Dusts	Smoking must be prohibited in all areas where this product is used - see safety information on flammability.
Thermal Hazards	Not Applicable

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended exposure measurement methods are given below or contact the supplier.

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colourless, liquid
Odour	Hydrocarbon
Odour threshold	Data not available
pH	Data not available
Initial boiling point and boiling range	150-270°C
Flash point	38°C (Tag closed cup)
Lower / upper flammability or explosion limits	0.7 – 5.0% (V)
Auto ignition temperature	229°C
Vapour pressure	0.013 hPA at 38°C
Relative density	0.785-0.82g/cm^3
Water solubility	Negligible
Solubility in other solvents	Data not available
n-octanol / water partition coefficient (log Pow)	Data not available
Dynamic viscosity	Data not available
Kinematic viscosity	Data not available
Vapour density (air =1)	4.5
Evaporation rate (nBuAc =1)	Data not available
Flammability	Flammable liquid

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Incompatible Materials:	May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Conditions to avoid:	Heat, sparks, flame and build-up of static electricity.
Hazardous Decomposition Products:	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Hazardous Reactions: Hazardous polymerization will not occur under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

Basis for assessment
Information given is based on product data, 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 ndividual component(s).

Likely routes of exposure
Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Acute oral toxicity
Low toxicity: LD50 > 5000 mg/kg , Rat

Acute dermal toxicity
Low toxicity: LD50 >2000 mg/kg , Rabbit

Acute inhalation toxicity
Harmful if inhaled. LC50 > 1.0 - <= 5.0 mg/l , 4 h, Rat High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Skin corrosion/irritation
Irritating to skin.

Serious eye damage/irritation
Expected to be slightly irritating.

Respiratory or skin/sensitation
Inhalation of vapours or mists may cause irritation to the respiratory system.

Respiratory irritation
Not expected to be a sensitiser.

Aspiration hazard
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Gem cell mutagenicity
Positive in in-vitro, but negative in in-vivo mutagenicity assays.

Carcinogenicity
Limited evidence of carcinogenic effect. Repeated skin contact has resulted in irritation and skin cancer in animals.

Material	Carcinogenicity classification
Naphthalene	ACGIH Group A4: Not classifiable as a human carcinogen
Naphthalene	NTP: Reasonably anticipated to be a human carcinogen
Naphthalene	IARC 2B: Possibly carcinogenic to humans
Naphthalene	GHS/CLP: Carcinogenicity Category 2
Fuels, diesel	ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans
Fuels, diesel	GHS / CLP: Carcinogenicity Category 2
Distillates (Fischer– Tropsch) C8-C26 Branched and linear	GHS / CLP: No carcinogenicity classification
Kerosine (Fischer- Tropsch) Full range, C8-C16 branched and linear alkanes	GHS / CLP: No carcinogenicity classification
Cumene	IARC 2B: Possibly carcinogenic to humans
Cumene	GHS / CLP: No carcinogenicity classification

Reproductive and developmental toxicity
Not expected to impair fertility. Not expected to be a developmental toxicant

Specific target organ toxicity – Single exposure

High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Specific target organ toxicity – Repeated exposure
Kidney: caused kidney effects in male rats which are not considered relevant to humans

Additional information
Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12: ECOLOGICAL INFORMATION

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

Acute toxicity
Expected to be toxic: 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.

Fish Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/
Aquatic crustea Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/l
Algea/Aquatic plants Expected to be toxic: LL/EL/IL50 > 1 <= 10 mg/l
Microorganisms Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Chronic Toxicity
Fish NOEC/NOEL expected to be > 0.01 - <= 0.1 mg/l (based on modelled data)
Aquatic crustacea NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on modeled data)

Mobility
Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater. Large volumes may penetrate soil and could contaminate groundwater. Floats on water.

Persistence/degradability
Not Persistent per IMO criteria. International Oil Pollution Compensation (IOPC) Fund definition: “A non- ersistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340ºC (645ºF) and (b) at least 95% of which, by volume, distils at a temperature of 370ºC (700ºF) when tested by the ASTM Method D-86/78 or any subsequent revision thereof." Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Bio accumulative Potential
Contains constituents with the potential to bio accumulate. Log Kow > =4.

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

SECTION 13: DIPOSAL CONSIDERATIONS

Dispose of waste according to federal, EPA, state and local 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.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name:	Kerosene
UN number:	1223
DG Class:	3
Subsidiary Risk 1:	None Allocated
Packaging Group:	III
HAZCHEM code:	3YE

Marine Pollutant:	Yes

Special Precautions for User:	Refer to incompatibilities in section 7 and stability and reactivity information in section 10.
ADDITIONAL TRANSPORT REQUIREMENTS:	Nil

SECTION 15: REGULATORY INFORMATION

Poisons Schedule (SUSMP): None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

ADDITIONAL INFORMATION

Australian Standards References:

AS 1020	The Control of undesirable static electricity.
AS 1076	Code of Practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications) – Parts 1 to 13.
AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 1940	The Storage and Handling of Flammable and Combustible Liquids.
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)
AS 2380	Electrical equipment for explosive atmospheres – Explosion Protection Techniques (Parts 1 to 9).
AS 3000	Electrical installations (known as the Australian/New Zealand Wiring Rules).

Other References:

NOHSC:2011(2003)	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission.
NOHSC; 2012 (1994)	National Code of Practice for the Labeling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra.
NES	National Occupational Exposure Standards for workplace Atmospheric Contaminants (NES) Australian Safety and Compensation Council, ASCC (Formerly NOHSC) 1995 as amended.
ADG Code 6th Edition	Australian Dangerous Goods Code 6th Edition

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

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since the manufacturer/supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

END OF SDS