

SAFETY DATA SHEET

Revision Date : 23.11.2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Laurel Paraffin
Chemical name : Kerosene
Synonyms : Paraffin
Product use : General purpose fuel
UN number : 1223

Supplier : Engen Petroleum Limited (Tel: +27 (0) 21 403 4911, a/h: +27 (0) 21 403 4099)
Health Emergency Telephone : +27 (0) 21 689 5227 (Red Cross Poison Service)
Transport Emergency Telephone : +27 (0) 11 975 1278/83 (Hazchemwise)
Customer Service Centre : 0860 036 436 (Sales and Technical Information)
Engen Website : <http://www.engen.co.za/>

2. HAZARDS IDENTIFICATION

Emergency response data : Colourless Liquid. Flammable. Product can accumulate a static charge and release vapours which may cause a fire or explosion. DOT ERG No. : 128

GHS Classification:**Health**

Acute inhalation toxicity	Hazard category 3. Toxic if inhaled.	Danger
Skin irritation	Hazard category 3. Hazard category 3.	Warning
Eye irritation	Hazard category 2B. Causes eye irritation.	Warning
Aspiration hazard	Hazard category 1. May cause chemical pneumonitis.	Danger

Environmental

Aquatic toxicity	: Hazard category 3. Toxic to fish, aquatic organisms and wildlife.	Warning
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Physical

Flammability	: Hazard category 2. Flammable liquid and vapour.	Warning
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GHS Labels/Pictograms:**Hazard Statements**

Flammable liquid and vapour. May be fatal if swallowed and enters airways. May cause eye and mild skin irritation.

Precautionary Statements**General**

Keep locked up and out of reach of children.

Prevention

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

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Response

IN CASE OF FIRE: Use carbon dioxide, foam or dry chemical for extinction. IF SWALLOWED: Immediately call a POISON CENTRE or doctor. Do NOT induce vomiting. IF INHALED: Call a POISON CENTRE or doctor immediately. IF ON SKIN (or hair): Immediately remove all contaminated clothing. Gently wash skin with plenty of soap and water. Launder contaminated clothing before re-use.

Storage

Store in a well-ventilated place and keep the container cool and tightly closed. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools.

Disposal

Do not discharge into lakes, streams, ponds and ground water supply.

See Section 11 for further health effects/toxicological data.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight%
Kerosene	8008-20-6	> 98.00
Ethyl Benzene	100-41-4	< 1.00
Naphthalene	91-20-3	< 1.00

See Section 8 for Exposure Limits (if applicable).

4. FIRST AID MEASURES

Inhalation	:	Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with mechanical device or use mouth-to-mouth resuscitation with a mouthpiece.
Skin contact	:	Remove contaminated clothing. Dry wipe exposed skin and cleanse with hand cleaner, soap and water. Launder contaminated clothing before reuse. (See Section 16 - Injection Injury)
Eye contact	:	Flush thoroughly with water. If irritation occurs call a doctor.
Ingestion	:	Seek immediate medical attention. Do not induce vomiting.
Note to doctors	:	Material if aspirated into the lungs may cause chemical pneumonitis. Skin contact may aggravate an existing dermatitis. Treat appropriately.

5. FIRE-FIGHTING MEASURES

Extinguishing media	:	Carbon dioxide, foam, dry chemical and water fog.
Special fire fighting procedure	:	Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.
Special protective equipment for firefighters	:	For fires in enclosed areas, fire fighters must use Self-Contained Breathing Apparatus.
Unusual fire and explosive hazards	:	Flammable.

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Products of decomposition : Fumes, smoke and carbon monoxide.
Flash Point : ≥ 38 °C (ASTM D-56)
Upper Explosion Limit (UEL) : 5.0 %(V)
Lower Explosion Limit (LEL) : 0.7 %(V)
NFPA Hazard Id : Health: 0; Flammability: 2; Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

Procedure if material is released or spilled : Report spills/releases as required to appropriate authorities.
Methods for cleaning up : Absorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up for later approved disposal.
LARGE SPILLS: Contain material and pump back to holding tank for disposal or recycling in accordance with product characteristics and applicable regulations.
Personal precautions : See Section 8.
Environmental precautions : Prevent spills from entering municipal sewers or drains and contact with soil.

7. HANDLING AND STORAGE

Safe handling advice : Harmful in contact with or if absorbed through the skin. Avoid inhalation of vapours or mists. Use in well ventilated area away from all ignition sources.
Storage information : Store in a cool area. Small containers of approved design, properly sealed and labeled, should be stored in well ventilated surroundings and kept out of reach of children.
Storage and handling procedures : To minimize the risk of fire or explosion from discharges, static and/or vapour accumulation, effectively bond and ground product storage and transfer systems. Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits (OELs)

Components	CAS-No.	Source	TWA	Value		Notations
Kerosene	8008-20-6	ACGIH	LTEL	200 mg/m ³	50 ppm	Skin; A3
Ethyl Benzene	100-41-4	ACGIH TLV OSHA PEL	LTEL STEL LTEL STEL	434 mg/m ³ 543 mg/m ³ 435 mg/m ³ 545 mg/m ³	100 ppm 125 ppm 100 ppm 125 ppm	A3; BEI
Naphthalene	91-20-3	ACGIH TLV OSHA PEL	LTEL STEL LTEL STEL	52 mg/m ³ 79 mg/m ³ 50 mg/m ³ 75 mg/m ³	10 ppm 15 ppm 10 ppm 15 ppm	Skin; A4

LTEL: Long Term Exposure Limits - Time Weight Average (TWA) over 8 hours.

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STEL: Short Term Exposure Limits - Time Weight Average (TWA) over 15 Minutes

Note: Limits Shown for guidance only. Follow applicable regulations.

Personal Protective Equipment (PPE)

Engineering controls	:	Use in well ventilated area. Explosive-proof ventilation equipment with local exhaust is desirable.
Respiratory protection	:	Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the recommended exposure limit. Self-Contained Breathing Apparatus may be required for use in confined or enclosed spaces.
Eye protection	:	If splash with liquid is possible, chemical type goggles should be worn.
Skin and body protection	:	Impervious gloves must be worn. If body contact is likely, appropriate personal protective equipment must be worn. Good personal hygiene practices should always be followed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid.
Colour	:	Colourless
Odour	:	Mild
Solubility	:	Negligible
Boiling point	:	> 140 °C
Flash Point	:	>= 38 °C (ASTM D-56)
Upper Explosion Limit (UEL)	:	5.0 %(V)
Lower Explosion Limit (LEL)	:	0.7 %(V)
Vapour pressure	:	< 1.0 hPa
Density	:	0.79 g/cm ³ @ (ASTM D-4052)
Viscosity, kinematic	:	1.5 mm ² /s @ 40 °C (ASTM D-445)

10. STABILITY AND REACTIVITY

Stability	:	Stable.
Conditions to avoid	:	Heat, sparks, flame and build up of static electricity.
Materials to avoid	:	Strong oxidizers.
Hazardous decomposition products	:	Fumes, smoke and carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	(Rats): Toxic (LD50: 50 or greater, but 300 mg/kg or less). Based on testing of similar products and/or the components. Danger Hazard category 3. May be fatal if swallowed and enters airways.
Acute dermal toxicity	:	(Rabbits): Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components. Warning See Section 15 for a Regulatory analysis of the ingredients. May be harmful in contact with skin.
Acute inhalation toxicity	:	(Rats): Toxic (LC50: greater than 2 but 10mg/l or less) 4 hours. Based on testing products and/or components. Danger Hazard category 3. Toxic if inhaled.
Skin irritation	:	(Rabbits): Mild irritant. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the

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		components. Warning Hazard category 3. Causes mild skin irritation.
Eye irritation	:	(Rabbits): Mild irritant. (Draize score: greater than 6 but 15 or less). Based on testing of similar products and/or the components. Warning Hazard category 2B. Causes eye irritation.
Respiratory and skin sensitization	:	Middle distillate oils were not skin sensitizers when tested in a Modified Buehler Guinea Pig Sensitization Assay.
Germ cell mutagenicity	:	This product tested negative in a series of mutagenic tests.
Carcinogenicity	:	This product contains ethylbenzene. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as possibly carcinogenic to humans (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans.
Reproductive toxicity (Teratogenicity)	:	A review of the literature indicates that inhalation of kerosene vapours does not cause reproductive or developmental effects in laboratory animals. There is no evidence of effects on humans.
Specific target organ toxicity (STOT) - single exposure	:	Low viscosity material if swallowed may enter the lungs and cause lung damage.
Specific target organ toxicity (STOT) - repeated exposure	:	Certain straight-run middle distillates have been found to produce skin tumors in laboratory mouse skin-painting tests, but these have usually been associated with a high level of skin irritation. Laboratory tests have indicated that the irritation can produce tumours. Therefore, if the precautions outlined in this SDS are followed to minimize repeated or prolonged skin contact which could cause irritation, these oils should pose no carcinogenic hazard to humans. Prolonged repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.
Aspiration hazard	:	Material if aspirated into the lungs may cause chemical pneumonitis.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	:	(Rainbow trout) LC/EC50: 18 - 25 mg/l at 96 hours.
Toxicity to aquatic organisms	:	(Daphnia) Immobilisation (50%): 1.4 - 21 mg/l at 48 hours. (Algae) Growth Inhibition (50%): 4 - 15 mg/l at 72 hours.

Elimination information (persistence and degradability)

Biodegradability	:	The majority of the components in this product would be expected to be inherently biodegradable. The constituents of kerosene which are volatilized will photodegrade in the atmosphere. The less volatile, more water-soluble components which are aromatic hydrocarbons will also undergo aqueous photodegradation.
Mobility	:	Not established.
Bioaccumulation	:	Not established.

Further information on ecology

Remarks	:	This environmental assessment is based on test data for this product (or estimated data).
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13. DISPOSAL CONSIDERATIONS

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Waste disposal	:	Product is suitable for burning for fuel value compliance with applicable laws and regulations.
Contaminated packaging	:	Empty containers retain residue (liquid and/or vapour) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconitioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.
Other regulations	:	Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity, or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP).
Flash Point	:	>= 38 °C (ASTM D-56)

14. TRANSPORT INFORMATION

Note	:	The flash point of this material is > 38 °C, and hence regulatory classifications for flammability may vary.
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ADR

Proper shipping name	:	KEROSENE
UN number	:	1223
Class	:	3
Letter	:	F
Packing group	:	III
Labelling number	:	3

CFR

Proper shipping name	:	KEROSENE
UN number	:	1223
Class	:	3
Letter	:	F
Packing group	:	III
Labelling number	:	3

IATA_C

Proper shipping name	:	KEROSENE
UN number	:	1223
Class	:	3
Letter	:	F
Packing group	:	III
Labelling number	:	3

IMDG

Proper shipping name	:	KEROSENE
UN number	:	1223
Class	:	3
Letter	:	F
Packing group	:	III
Labelling number	:	3
Marine pollutant	:	Marine Pollutant
Medical First Aid Guide (MFAG) table	:	311
Emergency Schedule (EmS)	:	3-07

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number
IMDG code page number : 3375
Static Accumulator (50 picosiemens or less) : Yes

15. REGULATORY INFORMATION

US OSHA Hazard Communication Standard : Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

Governmental Inventory Status : All components comply with TSCA, EINECS/ELINCS, AICS, METI, DSL, KECI, ENCS, PICCS and IECSC.

EU Labelling : Product is dangerous as defined by the European Union Dangerous Substances/Preparations Directives.

Symbols : Xn, N
Harmful, Dangerous for the environment

R-Phrase(s) : R10, R38, R67, R65, R51/53
Flammable., Irritating to skin., Vapours may cause drowsiness and dizziness., Harmful: may cause lung damage if swallowed., Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrase(s) : S2, S16, S43, S24, S62
Keep out of the reach of children., Keep away from sources of ignition - No smoking., In case of fire use foam/drypowder/carbon dioxide., Avoid contact with the skin., If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Note : Contains straight-run Kerosene.

SARA

U.S. Superfund Amendments and Reauthorization Act SARA Title III : This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) Reportable Hazard Categories : Fire Chronic Acute

SARA (313) Toxic Release Chemicals: : This product contains no chemicals reportable under SARA (313) Toxic Release Chemicals:

The following product ingredients are cited on the lists below

Chemical name	CAS-No.	Concentration [%]	List Citations
Kerosene	8008-20-6	> 98.00	19, 21, 25, 26
Ethyl Benzene	100-41-4	< 1.00	1, 8, 10, 18, 19, 20, 21, 23, 24, 25, 26
Naphthalene	91-20-3	< 1.00	16, 22

Regulatory List Searched

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK

Code Key: CARC = Carcinogen; SUS = Suspected Carcinogen

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16. OTHER INFORMATION

Note: Engen products do not contain PCBs.

INJECTION INJURY WARNING: If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a doctor as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm are created by the combustion of this product. Refer to product Material Safety Data Sheet for further safety and health information.

Note: No significant changes have been made to this Safety Data Sheet since the previous date.

Disclaimer

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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