

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Commercial Burner Fuel
Chemical name : Kerosene
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)
Poisons Information Helpline : 0861 555 777 (South Africa)
Spill Response : 086 100 0366 (South Africa)
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

Skin corrosion/irritation : Hazard category 2.
STOT - single exposure : Hazard category 3.
Aspiration hazard : Hazard category 1.

Environmental

Acute toxicity : Not classified.
Chronic toxicity : Hazard category 2.

Physical

Flammability : Hazard category 3.

Signal Word : DANGER

GHS Labels/Pictograms:



Hazard Statements

Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause long lasting harmful effects to aquatic life.

Precautionary Statements

General

Keep locked up and out of reach of children.

Prevention

Do not handle until all safety precautions have been read and understood. Use explosion-proof electrical, ventilating and transfer equipment.

Response

IN CASE OF FIRE: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. IF SWALLOWED: Immediately call a POISON CENTRE or doctor. Do NOT induce vomiting. IF INHALED: Call a POISON CENTRE

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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	100,00

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.
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)

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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.
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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.
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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

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

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.

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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 toxicity

Components

Kerosene

Acute oral toxicity	:	No available data.
Acute inhalation toxicity	:	No available data.
Acute dermal toxicity	:	No available data.

Skin corrosion/irritation

Components

Kerosene

Result	:	Causes skin irritation.
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Eye irritation

Components

Kerosene

Result	:	No known significant effects or critical hazards.
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Sensitization

Components

Kerosene

Remarks	:	This product is not a skin sensitizer.
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Germ cell mutagenicity

Components

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Kerosene

Remarks : No known significant effects or critical hazards.

Carcinogenicity

Components

Kerosene

Remarks : Not classifiable as a human carcinogen.

Reproductive toxicity (Teratogenicity)

Components

Kerosene

Remarks : No known significant effects or critical hazards.

STOT - single exposure

Components

Kerosene

Remarks : May cause drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure

Components

Kerosene

Remarks : No known significant effects or critical hazards.

Aspiration hazard

Components

Kerosene

Remarks : May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity effectsComponents

Kerosene

Acute toxicity : Fish, invertebrates and algae with E(L)L50s >1 mg/L

Chronic toxicity : Daphnia magna NOEL: 0.48 mg/L

Persistence and degradabilityComponents

Kerosene

Biodegradability : This product is expected to be inherently biodegradable.

BioaccumulationComponents

Kerosene

Bioaccumulation : Log Kow # 4 (potentially bioaccumulative)

13. DISPOSAL CONSIDERATIONS

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 conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

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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) number	:	3-07
IMDG code page number	:	3375
Static Accumulator (50 picosiemens or less)	:	Yes

15. REGULATORY INFORMATION

South African Legislation and Standards	:	South African OHS Act, 85 of 1993: Hazardous Chemical Substances, Regulation 9A National Environmental Management: Waste Act 2008
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South African Guidelines

SANS 10234:2008 - Globally Harmonized System of classification & labelling of chemicals

SANS 11014:2010 - Safety data sheet for chemical products - Content & order of sections

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	100,00	

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

16. OTHER INFORMATION

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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.
