1. Identification of the substance/preparation and company/undertaking

Product name: BP Illuminating Paraffin
SDS no.: SSA2129
Use of the substance/mixture: Fuel for domestic, commercial and industrial uses. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Synonyms: Kerosene, Paraffin.
Supplier: BP Southern Africa (Pty) Ltd
10 Junction Road
Parktown, Johannesburg
South Africa

EMERGENCY TELEPHONE NUMBER
+27 11 488 5111 (South Africa)
+258 21 357 348 (Mozambique)

OTHER PRODUCT INFORMATION
0860 222 456
E-mail address: MSDSadvice@bp.com

2. Hazards identification

This preparation is classified as dangerous according to Directive 1999/45/EC as amended and adapted.

Physical/chemical hazards: Flammable.
Human health hazards: Harmful: may cause lung damage if swallowed. Irritating to skin.
Environmental hazards: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

3. Composition/information on ingredients

A mixture of kerosine streams. May also contain small quantities of proprietary performance additives.

<table>
<thead>
<tr>
<th>South Africa</th>
<th>Chemical name</th>
<th>CAS no.</th>
<th>%</th>
<th>EINECS / ELINCS.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kerosine (petroleum), hydrodesulfurised</td>
<td>64742-81-0</td>
<td>0 - 100</td>
<td>265-184-9</td>
<td>R10 Xn; R65 Xi; R38 N; R51/53</td>
</tr>
<tr>
<td></td>
<td>Straight run kerosine</td>
<td>8008-20-6</td>
<td>0 - 100</td>
<td>232-366-4</td>
<td>R10 Xn; R65 Xi; R38 N; R51/53</td>
</tr>
</tbody>
</table>

See Section 16 for the full text of the R-phrases declared above.

Occupational exposure limits, if available, are listed in Section 8.

4. First-aid measures

Eye contact: If case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin contact: If case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical attention.
5. Fire-fighting measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable</th>
<th>Use foam or all-purpose dry chemical to extinguish.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not suitable</td>
<td>Do not use water jet.</td>
</tr>
</tbody>
</table>

Hazardous decomposition products

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- other hazardous substances.

Unusual fire/explosion hazards

Flammable liquid and vapour. Vapours can form explosive mixtures with air. Vapours are heavier than air and can spread along the ground or float on water surfaces to remote ignition sources. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special fire-fighting procedures

Notify police and fire brigade as soon as possible. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Protection of fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions - For non-emergency personnel

Eliminate all ignition sources. Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding area. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Floors may be slippery; use care to avoid falling. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Ensure good ventilation. Put on appropriate personal protective equipment.

Personal precautions - For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Environmental precautions

Storage tanks must be positioned within a bunded area. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Large spill

Immediately contact emergency personnel. Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spill product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Dispose of via a licensed waste disposal contractor.

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Reference to other sections

See Section 1 for emergency contact information. See Section 5 for firefighting measures. See Section 8 for information on appropriate personal protective equipment. See Section 12 for environmental precautions. See Section 13 for additional waste treatment information.

7. Handling and storage

Handling - Protective measures

Put on appropriate personal protective equipment. Do not swallow. Aspiration hazard Can enter lungs and cause damage. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid contact of spill material and runoff with soil and surface waterways. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. Do not reuse container. Empty containers retain product residue and can be hazardous.

Handling - Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Product name: BP Illuminating Paraffin

Date of issue: 24 July 2013

Product code: SSA2129

Format: South Africa

Language: ENGLISH

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Storage

Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks). Entry to any tanks or other confined space requires a full risk assessment and appropriate control measures to be put in place in conformance with appropriate regulations and industry practice on confined space entry. Explosive air/vapour mixtures can occur, particularly in unventilated or confined spaces. If product comes into contact with hot surfaces, or leaks occur from pressurised fuel pipes, the vapour or mists generated will create a flammability or explosion hazard. Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure.

Eliminate all ignition sources. Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Separate from oxidising materials. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store in a segregated and approved area. Use appropriate containment to avoid environmental contamination.

Not suitable

Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.

8. Exposure controls/personal protection

Ingredient name

<table>
<thead>
<tr>
<th>South Africa</th>
<th>Occupational exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine (petroleum), hydodesulfurised</td>
<td>DOL OEL (South Africa).</td>
</tr>
<tr>
<td>TWA: 575 mg/m³ 8 hours. Issued/Revised: 8/1995</td>
<td></td>
</tr>
<tr>
<td>TWA: 100 ppm 8 hours. Issued/Revised: 8/1995</td>
<td></td>
</tr>
<tr>
<td>STEL: 720 mg/m³ 15 minutes. Issued/Revised: 8/1995</td>
<td></td>
</tr>
<tr>
<td>STEL: 125 ppm 15 minutes. Issued/Revised: 8/1995</td>
<td></td>
</tr>
</tbody>
</table>

| Straight run kerosine | DOL OEL (South Africa). |
| TWA: 575 mg/m³ 8 hours. Issued/Revised: 8/1995 |
| TWA: 100 ppm 8 hours. Issued/Revised: 8/1995 |
| STEL: 720 mg/m³ 15 minutes. Issued/Revised: 8/1995 |
| STEL: 125 ppm 15 minutes. Issued/Revised: 8/1995 |

ACGIH TLVs

| Kerosine (petroleum), hydodesulfurised | ACGIH TLV (United States). Absorbed through skin. |
| TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours. Issued/Revised: 1/2003 |

| Straight run kerosine | ACGIH TLV (United States). Absorbed through skin. |
| TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours. Issued/Revised: 1/2003 |

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Exposure controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier or a specialist personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

The above information is provided to assist the customer in conducting its own assessment of risk to the health and safety of workers for the substance or preparation, and protection of the environment.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure.

In case of insufficient ventilation, wear suitable respiratory equipment.

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Hand protection

Wear chemical resistant gloves. Protective gloves must give suitable protection against mechanical risks (i.e. abrasion, blade cut and puncture). Recommended: Nitrile gloves.

Do not re-use contaminated or damaged gloves. Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.
9. Physical and chemical properties

General information

Appearance

Physical state  Liquid.
Colour  Colourless. / Yellow.
Odour  Hydrocarbon. Kerosene.

Important health, safety and environmental information

Flash point  Closed cup: 38°C (100.4°F) [Abel, IP 170]
Viscosity  Kinematic: <7 mm²/s (<7 cSt) at 40°C
Boiling point / range  <=280°C (<=536°F)
Density  775 - 840 kg/m³ (0.775 - 0.84 g/cm³) at 15°C
Solubility  Very slightly soluble in water.
Partition coefficient (LogKow)  >3

10. Stability and reactivity

Stability  The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Possibility of hazardous reactions  Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions to avoid  Under normal conditions of storage and use, hazardous reactions will not occur.
Materials to avoid  Reactive or incompatible with the following materials: oxidising materials.
Hazardous decomposition products  Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Effects and symptoms

Eyes  May cause eye irritation. Potential risk of transient stinging or redness if accidental eye contact occurs. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes. Vapour, mist or fume may cause eye irritation.
Skin  Irritating to skin.
Inhalation  May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs. Vapour, mist or fume may irritate the nose, mouth and respiratory tract.
Ingestion  Aspiration hazard if swallowed. Can enter lungs and cause damage. If swallowed, may irritate the mouth, throat and digestive system. If swallowed, may cause abdominal pain, stomach cramps, nausea, vomiting and diarrhoea.
Chronic effects  No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European Commission (EC).

12. Ecological information

Persistence/degradability  Inherently biodegradable
Mobility  Spillages may penetrate the soil causing ground water contamination.
Bioaccumulative potential  This product is not expected to bioaccumulate through food chains in the environment.
Environmental hazards  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Other ecological information  Spillages may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.
13. Disposal considerations

Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.

Special precautions

Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers.

Other information

Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers.

Unused product

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 07 03*</td>
<td>other fuels (including mixtures)</td>
</tr>
</tbody>
</table>

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID Classification</td>
<td>UN1223</td>
<td>KEROSENE</td>
<td>3</td>
<td>III</td>
<td></td>
<td>Hazard identification number 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tunnel code D/E</td>
</tr>
<tr>
<td>ADN Classification</td>
<td>UN1223</td>
<td>KEROSENE</td>
<td>3</td>
<td>III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG Classification</td>
<td>UN1223</td>
<td>KEROSENE</td>
<td>3</td>
<td>III</td>
<td></td>
<td>Emergency schedules (EmS)</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>F-E, S-E</td>
</tr>
<tr>
<td>ICAO/IATA Classification</td>
<td>UN1223</td>
<td>KEROSENE</td>
<td>3</td>
<td>III</td>
<td></td>
<td>Remarks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IATA 2009 (50) - Environmentally hazardous substance mark</td>
</tr>
</tbody>
</table>

PG*: Packing group
ADR/RID Classification code: F1
ADN Classification code: F1

15. Regulatory information

Classification and labelling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.

Label requirements

Hazard symbol or symbols

![Hazard symbol]

Indication of danger

R10- Flammable.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S2- Keep out of the reach of children.
S23- Do not breathe fumes/vapour/spray.
S24- Avoid contact with skin.
S43- In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray. Never use water.
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.
S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Child protection

Yes, applicable.

Tactile warning of danger

Yes, applicable.

Other regulations


### 16. Other information

<table>
<thead>
<tr>
<th>Full text of R-phrases referred to in sections 2 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10- Flammable.</td>
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<tr>
<td>R65- Harmful: may cause lung damage if swallowed.</td>
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</tr>
</tbody>
</table>

### History

| Date of issue/ Date of revision | 24/07/2013. |
| Date of previous issue          | 21/11/2012. |

### Notice to reader

> Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user’s obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.