# Sassi Lift Systems Limited

## Health & Safety Data Sheet

## COSHH Regulations for Winding Unit range :

Geko
Leo
Toro

SASSI LIFT SYSTEMS

Tel: 01376 550666 Fax: 01376 341219

# Material Safety Data Sheet

according to EC directive 2001/58/EC

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

| | | |
|---|---|---|
| **Material Name** | : | **Shell Omala Oil RL 460** |
| **Uses** | : | Gear lubricant. |
| **Product Code** | : | 001A0387 |
| **Manufacturer/Supplier** | : | **Shell UK Oil Products Limited**<br>PO Box 3<br>Ellesmere Port<br>CH65 4HB<br>United Kingdom |
| **Telephone** | : | +44-(0) 151-350-4000 |
| **Fax** | : | +44-(0) 151-350-4843 |
| **Emergency Telephone Number** | : | +44-(0) 151-350-4595 |

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| | | |
|---|---|---|
| **Preparation description** | : | Blend of polyolefins and additives. |

## 3. HAZARDS IDENTIFICATION

| | | |
|---|---|---|
| **EC Classification** | : | Not classified as dangerous under EC criteria. |
| **Health Hazards** | : | Not expected to be a health hazard when used under normal conditions. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities. |
| **Signs and Symptoms** | : | Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea. |
| **Safety Hazards** | : | Not classified as flammable but will burn. |
| **Environmental Hazards** | : | Not classified as dangerous for the environment. |

## 4. FIRST AID MEASURES

| | | |
|---|---|---|
| **General Information** | : | Not expected to be a health hazard when used under normal conditions. |
| **Inhalation** | : | No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice. |
| **Skin Contact** | : | Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention. |
| **Eye Contact** | : | Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention. |
| **Ingestion** | : | In general no treatment is necessary unless large quantities |

are swallowed, however, get medical advice.

**Advice to Physician** : Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

**Specific Hazards** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

**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 water in a jet.

**Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

**Protective measures** : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

**Clean Up Methods** : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

**Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

## 7. HANDLING AND STORAGE

**General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. 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.

**Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.

**Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50°C / 32 - 122°F
The storage of this product may be subject to the Control of

Pollution (Oil Storage) (England) Regulations. Further guidance maybe obtained from the local environmental agency office.

**Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.

**Unsuitable Materials** : PVC.

**Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion. Exposure to this product should be reduced as low as reasonably practicable. Reference should be made to the Health and Safety Executive's publication "COSHH Essentials".

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational Exposure Limits

**Exposure 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 ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

**Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

**Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. 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 combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN141.

**Hand Protection** : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, 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.

**Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur. Approved to EU Standard EN166.

**Protective Clothing** : Skin protection not ordinarily required beyond standard issue work clothes.

| | | |
|---|---|---|
| **Monitoring Methods** | : | 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. |
| **Environmental Exposure Controls** | : | Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | Amber. Liquid. |
| Odour | : | Slight hydrocarbon. |
| pH | : | Not applicable. |
| Boiling point | : | > 280 °C / 536 °F estimated value(s) |
| Pour point | : | Typical -42 °C / -44 °F |
| Flash point | : | Typical 274 °C / 525 °F (COC) |
| Explosion / Flammability limits in air | : | Typical 1 - 10 %(V) |
| Auto-ignition temperature | : | > 320 °C / 608 °F |
| Vapour pressure | : | < 0.5 Pa at 20 °C / 68 °F (estimated value(s)) |
| Density | : | Typical 855 kg/m3 at 15 °C / 59 °F |
| Water solubility | : | Negligible. |
| n-octanol/water partition coefficient (log Pow) | : | > 6 (based on information on similar products) |
| Kinematic viscosity | : | Typical 460 mm2/s at 40 °C / 104 °F |
| Vapour density (air=1) | : | > 1 (estimated value(s)) |
| Evaporation rate (nBuAc=1) | : | Data not available |

## 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| **Stability** | : | Stable. |
| **Conditions to Avoid** | : | Extremes of temperature and direct sunlight. |
| **Materials to Avoid** | : | Strong oxidising agents. |
| **Hazardous Decomposition Products** | : | Hazardous decomposition products are not expected to form during normal storage. |

## 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| **Basis for Assessment** | : | Information given is based on data on the components and the toxicology of similar products. |
| **Acute Oral Toxicity** | : | Expected to be of low toxicity: LD50 >2000 mg/kg , Rat |
| **Acute Dermal Toxicity** | : | Expected to be of low toxicity: LD50 >2000 mg/kg , Rabbit |
| **Acute Inhalation Toxicity** | : | Not considered to be an inhalation hazard under normal conditions of use. |
| **Skin Irritation** | : | Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. |
| **Eye Irritation** | : | Expected to be slightly irritating. |
| **Respiratory Irritation** | : | Inhalation of vapours or mists may cause irritation. |
| **Sensitisation** | : | Not expected to be a skin sensitiser. |
| **Repeated Dose Toxicity** | : | Not expected to be a hazard. |
| **Mutagenicity** | : | Not considered a mutagenic hazard. |

| | | |
|---|---|---|
| **Carcinogenicity** | : | Components are not known to be associated with carcinogenic effects. |
| **Reproductive and Developmental Toxicity** | : | Not expected to be a hazard. |
| **Additional Information** | : | Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. |

## 12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

| | | |
|---|---|---|
| **Acute Toxicity** | : | Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). |
| **Mobility** | : | Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile. |
| **Persistence/degradability** | : | Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment. |
| **Bioaccumulation** | : | Contains components with the potential to bioaccumulate. |
| **Other Adverse Effects** | : | Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. |

## 13. DISPOSAL CONSIDERATIONS

| | | |
|---|---|---|
| **Material 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. |
| **Container Disposal** | : | Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. |
| **Local Legislation** | : | Disposal should be in accordance with applicable regional, national, and local laws and regulations.<br>EU Waste Disposal Code (EWC): 13 02 06 synthetic engine, gear and lubricating oils. Classification of waste is always the responsibility of the end user. |

## 14. TRANSPORT INFORMATION

**ADR**
This material is not classified as dangerous under ADR regulations.

**RID**
This material is not classified as dangerous under RID regulations.

**ADNR**
This material is not classified as dangerous under ADNR regulations.

**IMDG**
This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**
This material is not classified as dangerous under IATA regulations.

## 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

| | | |
|---|---|---|
| EC Classification | : | Not classified as dangerous under EC criteria. |
| EC Symbols | : | No Hazard Symbol required |
| EC Risk Phrases | : | Not classified. |
| EC Safety Phrases | : | Not classified. |
| EINECS | : | All components listed or polymer exempt. |
| TSCA | : | All components listed. |
| Other Information | : | Environmental Protection Act 1990 (as amended). Health and Safety at Work Act 1974. Consumers Protection Act 1987. Control of Pollution Act 1974. Environmental Act 1995. Factories Act 1961. Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations. Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Control of Substances Hazardous to Health Regulations 1994 (as amended). Road Traffic (Carriage of Dangerous Substances in Packages) Regulations. Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations. Road Traffic (Carriage of Dangerous Substances in Road Tankers in Tank Containers) Regulations. Road Traffic (Training of Drivers of Vehicles Carrying Dangerous Goods) Regulations. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. Health and Safety (First Aid) Regulations 1981. Personal Protective Equipment (EC Directive) Regulations 1992. Personal Protective Equipment at Work Regulations 1992. |

## 16. OTHER INFORMATION

R-phrase(s)

Not classified.

| | | |
|---|---|---|
| **MSDS Version Number** | : | 1.1 |
| **MSDS Effective Date** | : | 05.03.2007 |
| **MSDS Revisions** | : | A vertical bar (\|) in the left margin indicates an amendment from the previous version. |
| **MSDS Regulation** | : | The content and format of this safety data sheet is in accordance with Commission Directive 2001/58/EC of 27 July 2001, amending for the second time Commission Directive 91/155/EEC. |
| **MSDS Distribution** | : | The information in this document should be made available to all who may handle the product. |
| **Disclaimer** | : | This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. |

# Shell Omala RL

## *Synthetic industrial gear and bearing oils*

**Shell Omala RL is based on the highest quality synthesized hydrocarbon fluids, combined with specially selected additives. It offers outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life for optimal gear and bearing protection.**

### Applications

- ***Moderately loaded enclosed industrial reduction gearboxes operating under arduous conditions, such as very low or elevated temperatures and wide temperature variations***
- ***Particularly recommended for certain 'lubricated-for-life' systems***
- ***Plain and rolling element bearings***
- ***Oil circulation systems***

### Performance Features and Benefits

- ***Excellent anti-wear performance providing long component life***
  Provides high levels of wear protection for rolling element bearings and moderately loaded gearboxes, providing benefits over mineral oil-based products in terms of gear and bearing component life.
- ***Excellent oxidation and thermal stability extending lubricant life***
  Resists the formation of harmful products of oxidation at high operating temperatures, improving system cleanliness and therefore reliability of the equipment.
- ***Longer service intervals***
  Extended component and lubricant life offers the opportunity to extend service intervals and to reduce maintenance and disposal costs.
- ***Superior lubricant performance improving gear efficiency***
  Offers improved low temperature performance and reduced change in viscosity with increase in temperature in comparison to mineral oil-based products. This provides better lubrication at low start-up temperatures and the opportunity for energy savings by optimising the viscosity for normal operating conditions.
- ***Outstanding rust and corrosion protection of all metal surfaces***
- ***Rapid water shedding and air release performance***

### Specification and Approvals

Meets the ISO 12925-1 Type CKS specification.

Meets the ANSI/AGMA 9005-D94 specification.

Meets the US Steel 224 specification.

Meets the David Brown S1.53.101 specification.

### Seal and paint compatibility

Omala RL is compatible with all seal materials and paints normally specified for use with mineral oils.

### Change over procedure

Omala RL is compatible with petroleum mineral oils and no special change-over procedure is necessary. However, to achieve the complete benefit of Omala RL, it should not be mixed with other oils.
It is also advisable to ensure that oil systems are clean and free from contamination.

### Advice

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

### Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet which can be obtained from your Shell representative.

**Protect the environment**

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

## Typical Physical Characteristics

| **Omala RL** | | **220** | **320** | **460** |
|---|---|---|---|---|
| **Kinematic Viscosity** | ISO 3104 | | | |
| at 40蚓 $mm^2/s$ | | 220 | 320 | 460 |
| at 100蚓 $mm^2/s$ | | 25.9 | 33.8 | 45.5 |
| **Viscosity Index** | ISO 2909 | 150 | 149 | 155 |
| **Density** at 15蚓 kg/m3 | ISO 12185 | 853 | 854 | 855 |
| **Flash Point COC** 蚓 | ISO 2592 | 240 | 270 | 275 |
| **Pour Point** 蚓 | ISO 3016 | -48 | -45 | -42 |
| **FZG-Test** A/8.3/90 | DIN 51354-2 | | | |
| Failure load stage | | >12 | >12 | >12 |

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.