

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 1 of 8

#### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

Trade name: **GREASEN Complex 2**

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Greasen Complex 2 grease is intended to lubricate highly loaded rolling and sliding bearings and other mechanisms, including using of central lubrication systems.

##### 1.3. Details of the supplier of the safety data sheet

Manufacturer: **ORLEN OIL SP. Z O.O.**

Address: 31-323 Kraków, ul. Opolska 100

Phone/Fax No.: +48 12 66 555 00 / +48 12 66 555 01

E-mail: [msds@orlenoil.pl](mailto:msds@orlenoil.pl)

##### 1.4. Emergency telephone number:

+ 48 13 43 84 415 ( in weekdays from 7.00 till 15.00)

#### SECTION 2. HAZARDS IDENTIFICATION

##### 2.1. Classification of the substance or mixture

Classification risks	According to EC Directive No.1272/2008 (CLP):	According to Council Directive No.67/548/EEC:
resulting from physicochemical properties:	Not classified	Not classified
for humans:	Not classified	Not classified
for the environment:	Not classified	Not classified

##### 2.2. Label elements

Pictogram: None

Signal word: None

Hazard statements: None

Precautionary statements: None

##### 2.3. Other hazards

According to Annex XIII, the product does not meet PBT or vPvB criteria. Flammable product, high ignition temperature.

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 2 of 8

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1. Substances – not applicable

### 3.2. Mixtures: a mixture of mineral base oil and additives

Hazardous ingredients and its concentrations in the mixture:

Substance name	CAS No.	% by wt.	Index No.	Classification according to 67/548/EU	Classification according to 1272/2008 (CLP)
Zinc dialkyl dithiophosphate	68649-42-3	≤ 1	-	Xi; R41, R38 N; R51/53	Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 2; H411
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	< 90	649-467-00-8	Not classified H and L note	Not classified H and L note

On the basis of H and L note unspecified base oils in the mixture are not classified as carcinogenic (DMSO extract content (according to IP 346) <3%).

Description of the R and H phrases, symbols, hazard classes and category codes is given in Section 16.

## SECTION 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Inhalation:

Due to the state of product (paste) the risk of exposure by inhalation does not exist in practice. Ensure access to the fresh air.

#### Skin contact:

Immediately remove contaminated/soaked clothes and shoes. Thoroughly wash contaminated skin with soapy water or mild detergent, and then rinse with water. Consult a doctor if irritation symptoms appear and persist.

NOTE: Take off contaminated/soaked clothes and remove it to a safe place, far from heat and ignition sources.

#### Eye contact:

Flush the contaminated eyes with running water, remove contact lenses (if worn) and continue flushing for approx. 15 minutes. When flushing, keep the eyelids wide open and move the eyeball. Consult a doctor if symptoms appear and persist.

#### Swallowing:

Obtain medical aid immediately. DO NOT induce vomiting. If no recovery is observed, ensure medical assistance.

### 4.2. Most important symptoms and effects, both acute and delayed

Not determined.

### 4.3. Indication of any immediate medical attention and special treatment needed

Do not induce vomiting and do not administer anything orally to an unconscious person. Show the material safety data sheet or the label/container to the medical staff. A person providing first aid in the area where vapour/fog concentration is unknown should be equipped with the appropriate respiratory protection.

Indications for a doctor: symptomatic treatment.

## SECTION 5. PROCEEDING IN CASE OF FIRE

### 5.1. Extinguishing media

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 3 of 8

**Suitable extinguishing media:** carbon dioxide, dry powder, foam; water spray

**Unsuitable extinguishing media:** water jet.

#### 5.2. Special hazards arising from the substance or mixture

Flammable product with high ignition temperature. In the fire environment smokes containing carbon oxides, nitrogen oxides, sulphur oxides and other unidentified thermal decomposition products of higher hydrocarbons are formed. Avoid breathing products being released in the fire environment.

#### 5.3. Advice for fire fighters

Proceed in accordance with procedures applicable for extinguishing chemical fire. In the case of fire involving great amounts of the product, remove all bystanders not participating in action; call emergency brigades and the Fire Brigade.

Cool the containers exposed to fire or high temperature with water spray from a safe distance, if possible and remove them from the endangered area.

Prevent the wastewater after fire extinguishing from penetrating sewage and water tanks. Remove wastewater and residue after firefighting in accordance with valid regulations.

People participating in the fire-extinguishing action should be properly trained, equipped with a full protective clothing and a self-containing breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use individual protection measures – see section 8 of the Safety Data Sheet.

Limit the access of bystanders to the endangered area until proper cleaning operations are finished. Ensure that breakdown and its results are eliminated by a properly trained staff only.

Avoid contact with the eyes, skin and clothes.

NOTE: Product can make surfaces slippery.

#### 6.2. Environmental precautions

Due to high setting temperature the product has limited ability to spread. Prevent the product from penetrating drains, waters or soil. Notify respective authorities (occupational safety and hygiene, emergency brigades, environmental brigades and organs of administration).

#### 6.3. Methods and material for containment and cleaning up

Collect with the equipment available and remove the residue having it mixed with soil, sand or other absorbent and then place into a sealed, properly labelled container. Utilisation should be performed according to the applicable regulations. If necessary, obtain help from specialist companies dealing with waste transport and utilisation in order to remove the product/absorbent material contaminated with the product.

#### 6.4. Reference to other sections

See also sections 8 and 13 of the Safety Data Sheet.

## SECTION 7. HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Provide effective ventilation. Avoid contact with the eyes, skin and clothes. Keep unused containers tightly closed. Essential hygiene rules should be observed: do not eat, drink or smoke during work, wash hands with soapy water after work/after break in work. Do not use contaminated clothing; Immediately remove contaminated clothing and wash before reuse. NOTE: Take off contaminated/soaked clothes and remove it to a safe place, far from heat and ignition sources. Use individual protection measures in accordance with the information contained in section 8 of the Safety Data Sheet.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly sealed and properly labelled containers, in room temperature, protect against contact with water or moisture, keep away from sources of ignition. Keep away from strong oxidisers.

Prevent against releasing the product to the ground and water.

#### 7.3. Specific end use(s)

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 4 of 8

None.

## SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT

### 8.1. Control parameters

Mineral oils (liquid phase of aerosol)\* TLV-TWA: 5 mg/m<sup>3</sup>, TLV-STEL: 10 mg/m<sup>3</sup>, TLV-C: –

*Directive of the Minister of Work and Social Policy dated November 29th, 2002 on the maximum occupational levels of factors hazardous to health at the workplace (Dz.U. No.217, item 1833; of 2005 Dz.U. No.212, item 1769, of 2007 Dz.U. No.161, item 1142; of 2009 Dz.U. No.105, item 873; of 2010 Dz.U. No.141, item 950)*

Unspecified base oil:

DNEL<sub>worker</sub> (inhalation, chronic toxicity) 5.4 mg/m<sup>3</sup>/8h (aerosol)

DNEL<sub>consumer</sub> (inhalation, chronic toxicity) 1.2 mg/m<sup>3</sup>/24h (aerosol)

PNEC<sub>water, sediment, soil, sewage treatment</sub> Not applicable (a substance does not pose a hazard to the environment)

PNEC (oral, mammals) 9.33 mg/kg food

### 8.2. Exposure controls

#### Appropriate engineering controls:

General ventilation and/or local fume hood in order to maintain hazardous agent concentration in air below acceptable limits.

#### Eye or face protection:

No special protection is required, use of protective glasses is recommended.

#### Skin protection:

No special protection is required, though to minimise the potential risk, the use of protective clothing and oil resistant protective gloves is recommended.

#### Respiratory protection:

Not required under normal conditions of use. In the case of exceeding the acceptable limits or inadequate ventilation use the approved respirator equipped with a suitable filter or filter-absorber.

#### Thermal hazards:

Not applicable.

#### Environmental exposure controls:

Consider using precautionary measures in order to protect the area around storage tanks.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

- |  |  |
|--|--|
| a) Appearance  | : Consistency: paste/ colour: brown            |
| b) Odour   | : faint, characteristic                        |
| c) Odour threshold   | : No data available                            |
| d) pH  | : Not applicable                               |
| e) Dropping point  | : >260°C                                       |
| f) Initial boiling temperature and melting temperature range     | : Not applicable                               |
| g) Ignition point  | : >200°C                                       |
| h) Evaporation rate  | : Not applicable                               |
| i) Flammability (solid, gas)                                     | : Not applicable                               |
| j) Upper/lower flammability limit or upper/lower explosion limit | : Not applicable                               |
| k) Vapour pressure   | : No data available                            |
| l) Vapour density  | : No data available                            |
| m) Relative density  | : approx. 1,0 g/cm <sup>3</sup>                |
| n) Solubility  | : Insoluble in water, soluble in hydrocarbons. |

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 5 of 8

o) Distribution coefficient n-octanol/ water	: Not applicable
p) Self-ignition point	: No data available
q) Decomposition temperature	: No data available
r) Viscosity	: No data available
s) Explosive properties	: None
t) Oxidizing properties	: None

#### 9.2. Other information

None

### SECTION 10. STABILITY AND REACTIVITY

#### 10.1. Reactivity

The product is not reactive.

#### 10.2. Chemical stability

The product is stable under normal ambient conditions, as well as under the expected temperature and under the expected pressure at storage and at handling.

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid:

High temperature, open flame and other ignition sources.

#### 10.5. Incompatible materials

Strong oxidisers

#### 10.6. Hazardous decomposition products

None known.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity:

No data

##### Skin corrosion/irritation:

Skin irritation possible at prolonged contact..

##### Serious eye damage/irritation:

Not applicable.

##### Respiratory or skin sensitisation:

Not applicable.

##### Germ cell mutagenicity:

Not applicable.

##### Carcinogenicity:

Not applicable.

##### Reproductive toxicity:

Not applicable.

##### STOT – single exposure:

Accidental ingestion may cause gastric disturbances (nausea, vomiting, stomach pain).

##### STOT – repeated exposure:

Not applicable.

### SECTION 12. ECOLOGICAL INFORMATION

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 6 of 8

#### 12.1. Toxicity:

No quantitative data.

#### 12.2. Persistence and degradability

Limited level of biodegradability.

#### 12.3. Bioaccumulative potential

No data available.

#### 12.4. Mobility in soil

Based on physical and chemical characteristics of product it shows low mobility in soil.

#### 12.5. Results of PBT and vPvB assessment

According to Annex XIII, the product does not meet PBT or vPvB criteria.

#### 12.6. Other adverse effects

None

### SECTION 13. HANDLING OF WASTES

#### 13.1. Waste treatment methods

Waste code: **13 08 99\*** Wastes not otherwise specified

NOTE: Since waste code is assigned based on the source of origin, the end user should define the obtained wastes and assign a proper code, taking into consideration specific conditions of use, in accordance with applicable regulations.

Do not dispose to sewer. Avoid contamination of surface and ground waters. Consider reuse. Waste product should be recovered or utilised at professional, approved furnaces or waste recycling/neutralization facilities, in accordance with applicable regulations.

Recovery / recycling / utilisation of package wastes should be performed according to the applicable regulations.

NOTE: Only completely emptied and cleaned packages may be returned for recycling. Use services of authorised companies.

*The Act of 14 December 2012 on wastes (Dz.U. year 2013, item 21)*

*The Act of 11 May 2001 on packages and package wastes (Dz.U. No. 63, item 638 with amendments)*

*Regulation of the Minister of Environment of 27 September 2001, on wastes catalogue (Dz. U. No.112, item 1206 with amendments)*

### SECTION 14. TRANSPORT INFORMATION

The substance is not a subject to transport regulations on hazardous goods included in ADR (road transport), RID (rail transport), IMDG (marine transport) and ICAO/IATA (air transport).

<b>14.1. UN number</b>	Not applicable
<b>14.2. UN Proper shipping name</b>	Not applicable
<b>14.3. Transport hazard class(es)</b>	Not applicable
<b>14.4. Packing group</b>	Not applicable
<b>14.5. Environmental hazards</b>	Not applicable
<b>14.6. Special precautions for users</b>	Not applicable
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable

### SECTION 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Act of 25 February 2011 on chemicals and their mixtures (Journal of Laws of 2011 No. 63 item 322)

Regulation of the Minister of Health of 20 April 2012 on labelling packaging of dangerous substances and dangerous mixtures and some mixtures (Journal of Laws 12, item 445)

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 7 of 8

Regulation (EC) No. 1907/2006 of the European Parliament of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) and establishing the European Chemicals Agency, amending Directive No.1999/45/WE and repealing regulation of the Council (EEC) No. 793/93 and regulation of the Commission (EC) No. 1488/94, as well as the Council Directive No. 76/769/EEC and Commission Directive No. 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (correction Journal of Laws of 29 May 2007 as amended)

Regulation of the Commission (EC) No. 453/2010 of 20 May 2010 amending regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) (Journal of Laws L 133 of 31 May 2010)

Regulation of the European Parliament and the Council (EC) No. 1272/2008 of 16 December 2008 on classification, labelling and packing substances and mixtures, amending and repealing directives 67/548/EEC and 1999/45/EC and amending regulation (EC) No. 1907/2006 (Journal of Laws No. 353 of 31 December 2008 as amended)

Regulation of the Minister of Health of 2 September 2003 on criteria and methods of classifying substances and chemical preparations (Journal of Laws of 2003, No. 171, item 1666; of 2004 No. 243, item 2440; of 2007 No. 174, item 1222; of 2009 No. 43, item 353)

Regulation of the Minister of Health of 20 April 2005 on tests and measurements of factors harmful to life in the working environment (Journal of Laws of 2005, No. 73, item 645; of 2007 Journal of Laws No. 241, item 1772)

Regulation of the Minister of Economy of 21 December 2005 on essential requirements for personal protection (Journal of Laws of 2005 No. 259, item 2173)

Regulation of the Council of Ministers of 24 August 2004 on the list of works forbidden to adolescents and conditions of their employing at some of these works (Journal of Laws of 2004, No. 200, item 2047; of 2005 r. No. 136, item 1145; of 2006 No. 107, item 724)

Regulation of the Council of Ministers of 10 September 1996 on the list of works forbidden for women (Journal of Laws of 1996, No. 114, item 545 of 2002, No. 127, item 1092)

Regulation of the Minister of Health and Social Care of 30 May 1996 on medical examination of employees, scope of preventive health care and medical certificates issued for purposes stipulated in the Labour Code (Journal of Laws of 1996, No. 69, item 332; of 1997 No. 60, item 375; of 1998 No. 159, item 1057; of 2001 No. 37, item 451; No. 128, item 1405)

Regulation of the Minister of Health and Social Policy of 26 September 1997 on general occupational health and safety regulations (consolidated text, Journal of Laws of 2003 No. 169, item 1650; of 2007 No. 49, item 330; of 2008 No. 108, item 690)

Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal of Laws of 2005 No. 11, item 86; of 2008 No. 203, item 1275)

Act of 24 August 1991 on fire protection (consolidated text, appendix to the Journal of Laws of 2002 No. 147 item 1229; of 2003 No. 52, item 452; of 2004 No. 96, item 959; of 2005 No. 100, item 835 and 836; of 2006 No. 191, item 1410; of 2007 No. 89, item 590; of 2008 No. 163, item 1015; of 2009 No. 11, item 59)

European Agreement concerning the international carriage of dangerous goods by road (ADR), concluded in Geneva on 30 September 1957, as amended, effective as of the date of entry into force for the Polish Republic, proclaimed in the right way (Dz. U. of 2011. No 110, item 641);

Act of 19 August 2011 on the carriage of dangerous goods (Dz. U. of 2011, No 227, item 1367).

### 15.2. Chemical safety assessment

The manufacturer hasn't made chemical safety assessment yet.

## SECTION 16. OTHER INFORMATION

### Abbreviations and acronyms in the Safety Data Sheet

TLV-TWA	Threshold Limit Value
TLV-STEL	Threshold Limit Value, Short Term Exposure Limit
TLV-C	Ceiling exposure limit
vPvB	very Persistent, very Bioaccumulative (substance)
PBT	Persistent, bioaccumulative, and toxic (substance)
PNEC	Predicted No Effect Concentration
DN(M)EL	Derived No Effect Level
LD <sub>50</sub>	Dose that will kill 50% of the test animals
LC <sub>50</sub>	Concentration that will kill 50% of the test animals
EC <sub>x</sub>	Concentration at which x% inhibition of growth or growth rate is observed
LOEC	Lowest Observed Effect Concentration
NOEL	No Observed Effect Concentration
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
ADR	Agreement on Dangerous Goods by Road
IMDG	International Maritime Transport of Dangerous Goods
IATA	International Air Transport Association
UVCB	Unknown substances, of Variable Composition, or of Biological Origin

### References:

## MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with later amendments

### GREASEN Complex 2

Made on: 11.09.2008

Updated on: 10.04.2013

Version: 1.0 CLP

Page 8 of 8

---

Legal regulations quoted in sections 2 – 15 of the Safety Data Sheet.

#### The list of applicable H-phrases

- H 315 – Irritant to skin
- H 318 – Causes serious eye damage
- H411 - Toxic to aquatic life with long lasting effects

#### The list of applicable CLP classification phrases

- Skin Irrit. 2 – Caustic effect/ Causes skin irritation– Cat. 2
- Eye Dam. 1 - Serious eye damage – Cat. 1
- Aquatic Chronic 2 - Hazardous to the aquatic environment - chronic, cat. 2

#### The list of applicable R-phrases

- R 38 – Irritant to skin
- R 41 - Risk of serious damage to eyes
- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### DSD/DSP classification

- Xi – irritant product
- N - Dangerous for the environment

#### Advice on training for employees:

Employees who use the product should be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

This MSDS is not a quality certificate for the product. All data presented in this sheet are to be taken only as a help in safe handling in transport, distribution, use and storage. Persons handling the product should be informed about risks and precautionary measures. Information in the Safety Data Sheet relates to the above mentioned product and its specified uses only. They may be obsolete or insufficient for this product used in conjunction with other materials or in different applications than those specified in the Safety Data Sheet.

The user is obliged to follow all applicable standards and regulations and is also responsible for inappropriate use of information contained in this sheet or for an inappropriate use of the product. In the case of special applications evaluate exposure and develop the appropriate procedure and training programs in order to ensure safety at work.

---