

MATERIAL SAFETY DATA SHEET

In accordance with Regulation (EU) No 453/2010

GREASEN EP-23

Made on: 12.09.2012

Updated on: 08.04.2015

Version: 2.0 CLP

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**Trade name: **GREASEN EP-23****1.2. Relevant identified uses of the substance or mixture and uses advised against**

Greasen EP-23 is intended to lubricate heavy loaded friction centres operating in temperatures between -30°C and $+140^{\circ}\text{C}$, and bevel gears of trimmers. It is recommended to be applied everywhere, where often direction changes or simultaneous low speed and high loads occur e.g. constant velocity universal joints.

1.3. Details of the supplier of the safety data sheetManufacturer: **ORLEN OIL SP. Z O.O.**

Address: 31-323 Kraków, ul. Opolska 100

Phone/Fax +48 12 66 555 00 / +48 12 66 555 01

No.:

E-mail: msds@orlenoil.plQuality related +48 13 43 84 415 (in weekdays from 7.00 till 15.00)
information**1.4. Emergency telephone number:**

112 (Emergency number), 998 (Fire Brigade), 999 (Ambulance Service)

SECTION 2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture**

risks	Classification 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.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

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Mixture of unspecified base oils and additives. DMSO extract content in base oil (according to IP 346) <3%.

Substance name	CAS No.	% by wt.	Index No.	Classification according to 67/548/EU	Classification according to 1272/2008 (CLP)
Zinc dialkyldithiophosphate	68649-42-3	< 1,2	-	Xi R38-41, N R51/53	Eye Dam.1 H318, Skin Irrit. 2 H315 (concentration limit:>15%) Aquatic Chronic 2, H411
Molybdenum disulfide	1317-33-5	<3%	-	Xi, R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Description of R, H phrases and full text of classification 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.

Eye contact:

Flush the contaminated eyes with a lot of water. Remove contact lenses. Consult a doctor if symptoms appear and persist.

Swallowing:

DO NOT induce vomiting. Obtain medical aid immediately.

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

After inhalation: high concentration of vapours may cause mild irritation of the respiratory system, pains and dizziness.

After skin contact: dryness, reddening possible in case of prolonged contact

After eye contact: reddening, tearing, burning possible

After swallowing: nausea, vomits possible

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

The decision and choice of rescue treatment are made by doctor: symptomatic treatment.

SECTION 5. PROCEEDING IN CASE OF FIRE**5.1. Extinguishing media**

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

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

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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

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)

None.

SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT

8.1. Control parameters

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8.2. Exposure controls

Highly refined mineral oils – inhaled fraction: TLV-TWA: 5 mg/m³, TLV-STEL: - mg/m³, TLV-C: –

Directive of the Minister of Work and Social Policy dated June 6th, 2014 on the maximum occupational levels of factors hazardous to health at the workplace (Dz.U. 2014, item 817)

DNEL values for hydrotreated heavy paraffinic distillates (crude oil):

DNEL for worker (inhalation, chronic toxicity) 5.4 mg/m³/8h (spray)

DNEL for customer (inhalation, chronic toxicity) 1.2 mg/m³/24h (spray)

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:

Tight safety eyeglasses (goggles) in the case of prolonged exposure or the risk of liquid splashing to the eye. It is recommended to equip the workplace with a water shower to flush eyes.

Skin protection:

Wear impermeable, oil resistant gloves (e.g. perbutane, viton, butyl rubber). Glove material should be selected with consideration to the breakthrough time, permeability rate and degradation. It is recommended to change gloves regularly and replace them immediately if any signs of wear or damage (tearing, puncture) or changes in appearance (colour, flexibility, shape) occur. Wear protective apron or protective suit made of coated, product-resistant fabrics; oil-resistant, anti-slippery shoes.

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. For activities in the limited space / insufficient oxygen content in air / high uncontrolled emission / any circumstances, in which the mask does not provide adequate protection, use self-contained breathing apparatus.

Thermal hazards:

Not applicable

Environmental exposure controls:

Consider using precautionary measures in order to protect the area against release to environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance	: Consistency: paste/ colour: black
b) Odour	: faint, characteristic
c) Odour threshold	: Not determined
d) pH	: Not determined
e) Melting/solidification temperature	: >190°C
f) Initial boiling temperature and melting temperature range	: Not determined
g) Ignition point	: >200°C
h) Evaporation rate	: No data available
i) Flammability (solid, gas)	: No data available
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 ³
n) Solubility	: Insoluble in water, soluble in hydrocarbons.
o) Distribution coefficient n-octanol/ water	: Not determined

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p) Self-ignition point	: Not determined
q) Decomposition temperature	: Not determined
r) Viscosity	: Not determined
s) Explosive properties	: It does not show
t) Oxidizing properties	: It does not show

9.2. Other information

Dropping point >200

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is not reactive.

10.2. Chemical stability

The product is stable under normal handling and storage is stable.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid:

Direct sunlight, sources of heat and ignition.

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 for the product – data for distillates heavy hydrotreated)

LD50: >5000 mg/kg (oral, rat)

LC50: >5.53 mg/l (inhalation, rat)

LD50: >5000 mg/kg (skin, rabbit)

Skin corrosion/irritation:

Classification criteria have not been met based on the available data.

Serious eye damage/irritation:

Classification criteria have not been met based on the available data.

Respiratory or skin sensitisation:

Classification criteria have not been met based on the available data.

Germ cell mutagenicity:

Classification criteria have not been met based on the available data.

Carcinogenicity:

Classification criteria have not been met based on the available data.

Reproductive toxicity:

Classification criteria have not been met based on the available data.

STOT – single exposure:

Classification criteria have not been met based on the available data.

STOT – repeated exposure:

Classification criteria have not been met based on the available data.

Aspiration hazard:

Classification criteria have not been met based on the available data.

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SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

No quantitative data available for the mixture.

12.2. Persistence and degradability

hydrotreated heavy paraffinic distillates (crude oil) [CAS64742-54-7]

Biodegradability: hard biodegradable (2-31% in 28 days)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

On a basis of physical and chemical characteristics data 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

Product of very low volatility. The product is insoluble in water and lighter than water. The product accumulates on the surface of water, forming a film that hinders oxygen exchange.

SECTION 13. HANDLING OF WASTES

13.1. Waste treatment methods

Recommendations applicable for the mixture: do not allow to enter sewage draining systems. Utilise in compliance with applicable regulations. The waste code should be assigned to the site of its generation.

Recommendations concerning used packages: recovery / recycling / package waste decommissioning should be carried out in compliance with applicable regulations. Only entirely emptied packages can be submitted to recycling.

The Act of 14 December 2012 on wastes (Dz.U. of 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).

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

SECTION 15. REGULATORY INFORMATION

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

The Act of 11 January 2001 on chemical substances and preparations (consolidated text Dz.U. of 2009 No.152, item 1222, of 2010 No.107, item 679, No.182, item 1228)

Regulation (EC) No.1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency and amending Directive 1999/45/EC and

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repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (correction OJ L 136 of 29 May 2007 with amendments)

Regulation of the (UE) Commission no. 453/2010 of 20 May 2010 amending the Regulation (EC) No. 1907/2006 of the European Parliament and Council dated December 18, 2006 on registration, evaluation, granting of permissions and restrictions applied in scope of chemicals (REACH) (OJ L 133 of 31.05.2010)

Regulation (UE) of the European Parliament and Council no. 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending the Regulation (EC) No. 1907/2006 (EU OJ L No.353 dated 31.12.2008 with amendments)

Regulation of the Minister of Health of 2 September 2003, on the criteria and classification chemical substances and preparations (Dz. U. 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 Work and Social Policy of 20 April 2005 on testing and measurements of factors hazardous to health at the workplace (Dz.U. of 2005 No.73, item 645; of 2007 Dz.U. No.241, item 1772)

Regulation of the Minister of Economy of 21 December 2005, on the basic requirements for personal protection measures (Dz. U. of 2005 No.259, item 2173)

Regulation of the Council of Ministers of 24 August 2004 on the list of jobs prohibited for young workers and the circumstances in which they might be employed in some of these jobs (Dz.U. of 2004 No.200, item 2047; of 2005 No.136, item 1145; of 2006 No.107, item 724)

Regulation of the Council of Ministers of 10 September 1996 on the list of jobs that are prohibited for women (Dz.U. of 1996 No.114, item 545, of 2002 No.127, item 1092)

Regulation of the Minister of Health and Social Policy of 30 May 1996 on conducting the medical examinations of employees, range of medical prevention and medical decisions given on the purposes specified in the Labour Code (Dz. U. 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 Labour and Social Policy of 26 September 1997 on general regulations for hygiene and safety at work (consolidated text Dz.U. 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 safety and hygiene of work related to chemical factors present at the workplace (Dz.U. of 2005 No.11, item 86; of 2008 No.203, item 1275)

The Act of 24 August 1991 on fire protection (consolidated text – appendix to Dz.U. 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)

Act of 31 March 2004, on railway transport of hazardous substances (Dz. U. of 2004 No.97, item 962; of 2005 No.141, item 1184; of 2006 No.249, item 1834; of 2007 No.176, item 1238)

Regulations for the International Rail Transport of Hazardous Goods RID (of 2009 Dz.U. No.167, item 1318)

15.2. Chemical safety assessment

Chemical safety assessment not required for the mixture

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 ₅₀	Dose that will kill 50% of the test animals
LC ₅₀	Concentration that will kill 50% of the test animals
EC _x	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

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Legal regulations quoted in sections 2 – 15 of the Safety Data Sheet.
Chemical safety assessment report for the substance – base oils unspecified.

The list of applicable H-phrases

H318 - Causes serious eye damage.
H 319 – Irritant to eyes
H 315 – Irritant to skin
H411: Toxic to aquatic life with long lasting effects

The list of applicable CLP classification phrases

Eye Dam. 1 Eye damage category 1
Skin Irrit. 2 Skin irritating effects category 2
Eye Irrit. 2 Eye irritating effects category 2
Aquatic Chronic 2 Chronic aquatic hazard - Category 2

The list of applicable R-phrases

R 36/38 – Irritant to eyes and skin
R38 - Irritating to eyes.
R41 - 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 – hazardous to 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.
