



MATERIAL SAFETY DATA SHEET

prepared according to 1907/2006/EC (REACH) and 453/2010

GREASEN ŁT-4 S-2, GREASEN ŁT-4 S-3

Prepared: 26.09.2011

Revised: 01.06.2015

Version: 3.0/EN

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Section 1: Identification of substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **GREASEN ŁT-4 S-2, GREASEN ŁT-4 S-3**

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

Identified uses: grease applied for lubrication of rolling and slide bearings, cross joints during their installation, pull rods and guides of machines as well as other machine elements operating in temperatures between - 30°C and + 130°C. Greases can be successfully used in households, workshops and farmsteads.

Uses advised against: not defined.

1.3 Details of the supplier of the safety data sheet

Supplier: **ORLEN OIL Sp. z o.o.**
Address: ul. Opolska 100, 31-323 Krakow
Phone/fax: +48 12 66 555 00 / +48 12 66 555 01

Information on quality issues: +48 13 43 84 415

E-mail address of the person responsible for the material safety data sheet: msds@orlenoil.pl

1.4 Emergency telephone number

112 (emergency telephone number), 998 (Fire Brigade), 999 (Medical Rescue Service), +48 13 43 84 415 (active from Monday through Friday during working hours: 7:00 a.m. to 3:00 p.m.)

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Aquatic Chronic 3 H412
Harmful to aquatic life with long lasting effects

2.2 Label elements

Hazard pictogram and signal word

None

Hazard statements

H412 Harmful to aquatic life with long lasting effects

Precautionary statements

P273 Avoid release to the environment

P501 Dispose of contents/container to a licensed waste disposal company.

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2.3 Other hazards

Components of the mixture do not meet PBT or vPvB criteria, according to Annex XIII of the REACH Directive.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

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

CAS number: 68784-26-9 EC number: 272-234-3 Index number: - REACH Registration number: 01-2119524004-56-XXXX	Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased Aquatic Chronic 4 H413	< 1,5 %
CAS number: 68649-42-3 EC number: 272-028-3 Index number: - REACH Registration number: -	Zinc dialkyl dithiophosphate Eye Dam.1 H318, Skin Irrit. 2 H315, Aquatic Chronic 2 H411 Concentration limit: > 15% Eye Dam.1 H318, Skin Irrit. 2 H315	< 1,2 %
CAS number: 121158-58-5 EC number: 310-154-3 Index number: - REACH Registration number: -	Phenol, dodecyl-, branched Repr. 2 H361f, Skin Irrit 2 H315, Eye Irrit 2 H319, Aquatic Acute 1 H400 Aquatic Chronic 1 H410 (M=1)	< 0,5%

Description of H phrases given in Section 16.

Section 4: First aid measures

4.1 Description of first-aid measures

After skin contact: remove contaminated clothes. Wash contaminated skin with plenty of water. Wash the clothes before using again. Consult doctor if irritation occurs.

After eye contact: rinse with plenty of clean water for approximately 15 minutes. Protect the unaffected eye, remove contact lenses. NOTE: do not use excessive water stream intensity not to injure the cornea. Consult doctor in case worrying symptoms occur.

After swallowing: do not induce vomits. Do not give anything to unconscious person. Consult a doctor.

After inhalation: Due to the state of product the risk of exposure by inhalation does not exist in practice. Ensure access to the fresh air. bring the affected person into fresh air and keep warm and at rest. In case of worrying symptoms, consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

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

After eye contact: reddening, tearing, burning possible.

After swallowing: possible nausea, vomits.

After inhalation: negative effects for health are not expected.

4.3 Indications of any immediate medical attention and special treatment needed

The decision and choice of rescue treatment are made by doctor after precise evaluation of the health condition of affected person. Symptomatical treatment.

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Section 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, extinguishing powder, extinguishing foam, water spray. Select extinguishing agents, appropriate for materials in direct environment.

Unsuitable extinguishing agents: water jets – a risk of fire spreading.

5.2 Special hazards arising from the substance or mixture

In fire conditions, harmful gases may be released, containing, among others: carbon, nitrogen and sulphur oxides. Avoid inhalation of combustion products which may be harmful for health.

5.3 Advice for fire fighters

Use personal protection equipment, typical for fire conditions. Avoid staying at fire zone without appropriate, protective clothes, resistant to chemicals, and without respirator with closed air circulation. Do not allow run off from fire lighting zone to enter drains or surface or ground waters. Cool off fire endangered tanks with water sprays from safe distance. Collect used extinguishing media.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For the persons not taking part in the elimination of break down effects: limit the access of bystanders to the endangered area until proper cleaning operations are completed. In case of major releases, isolate the endangered area. Do not inhale vapours. Avoid contact with skin or eyes. Do not allow the product to enter the mouth. Use personal protective equipment. Attention: the spilled product can make surface slippery.

For the persons taking part in the elimination of break down effects: ensure that the elimination of break down and its effects is carried out exclusively by trained personnel. Use personal protective equipment.

6.2 Environmental precautions

Do not allow the mixture to enter drains or surface or ground waters. In case of release of bigger mixture volumes, undertake necessary steps to prevent the spread of release in the natural environment. Alert appropriate rescue services.

6.3 Methods and materials of containment and cleaning up

Place defective packaging in a replacement packaging. Contain spillage with non-flammable, fluid-absorbing materials (e.g., sand, earth, diatomaceous earth or vermiculite) and protect in closed containers. Treat the collected materials as waste. Clean the contaminated area with water.

6.4 References to other sections

Product waste management – see Section 13. Personal protective equipment – see Section 8 of the Safety Sheet.

Section 7: Handling and storage of substances and their mixtures

7.1 Precautions for safe handling

Work in compliance with safety and health regulations. Do not eat, drink or smoke at work. Avoid contact with the eyes or skin. Do not inhale vapours. Do not allow the product to enter the mouth. Wash hands before break and after work. Ensure proper ventilation. Use personal protective equipment.



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7.2 Conditions for safe storage, including any incompatibilities

Store the product in its original packaging, at dry, cool and well ventilated areas, far away from ignition sources. Do not store the product together with food, foodstuffs or animal feeds. Avoid direct exposure to sunlight. Do not store together with incompatible substances (see Section 10).

7.3 Specific end use(s)

No available data, regarding uses other than specified in Subsection 1.2.

Section 8: Exposure controls / personal protection

8.1 Control parameters

Specification	TLV	TLV-STEL	TLV-C	BLV
mineral oils - (spray liquid phase)	5 mg/m ³	—	—	—

Legal basis: Journal of Laws of 2014, item 817

Recommended monitoring procedures

Apply procedures of monitoring hazardous component concentrations in the air and procedures of air cleanliness control – unless they are available and justified at a given workplace – in compliance with appropriate Polish or European standards, taking into account the conditions at exposure site and the proper methodology of measurements, tailored to occupational conditions. The mode, type and frequency of tests and measurements should follow the requirements of the Regulation of the Ministry of Health of 2nd February, 2011 (Journal of Laws No. 33, item 166).

8.2 Exposure control

Respect the general principles of health and safety. Do not eat or drink or smoke tobacco at work. Wash hands thoroughly before break and after work. Avoid contact with skin or eyes. Do not inhale vapours. Contaminated clothes should be removed and washed before using again. Ensure proper ventilation. At workplace site, emergency showers and eye-washing stations should be installed.

Hands and body protection: the use of protective gloves is recommended, made, for example, of: viton, perbunan, butyl rubber. In case of short exposure duration, use protective gloves with the efficacy level of 2 or more (the breakthrough time > 30 minutes). In case of long-term exposure, use protective gloves with the efficacy level of 6 (the breakthrough time > 480 minutes). Use protective clothes, made of coated fabrics.

The material, of which the gloves are made, has to be impermeable and resistant to the product effects. The material selection should take into account its breakthrough times, the permeation rate and the degradation rate. Moreover, the selection of appropriate gloves depends not only on material but on other qualitative features and varies, depending on the manufacturer. The breakthrough time information should be obtained from the gloves manufacturer and strictly adhered to.

Eye protection: use protective goggles or face protection.

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Respiratory protection: not required in case of appropriate ventilation. In case when vapours and sprays are generated, use absorbing or absorbing-filtering equipment of proper protection class (class I / protection against gases or vapours with volumetric concentration in the air not exceeding 0.1%; class 2 / protection against gases or vapours with volumetric concentration in the air not exceeding 0.5%; class 3 / protection against gases or vapours with volumetric concentration in the air not exceeding 1%. In cases, when oxygen concentration is $\leq 17\%$ and/or the maximum concentration of toxic substance in the air is $\geq 1.0\%$ of volume, an isolating respiratory equipment should be used.

The applied personal protective equipment has to meet the requirements, contained in the Regulation of the Minister of Economy of 28th December 2005 (Journal of Laws No. 259, item 2173) and of 89/686/EC Directive (as amended). An employer is obliged to provide means of personal protective equipment, suitable for performer tasks and meeting all the quality requirements, including maintenance and cleaning.

Thermal hazards: do not occur.

Control of environmental hazards

Avoid release to the environment; avoid entry into sewage drain systems. Possible emissions from the ventilation systems of process gear should be checked for conformity with the requirements of the Environmental Protection Law.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

physical state/ form:	paste
colour:	brown
odour:	characteristic
odour threshold:	not determined
pH value:	not determined
melting / solidification temperature:	not determined
initial boiling temperature and boiling temperature range:	not determined
ignition temperature:	> 200°C
evaporation rate:	not determined
flammability (solid substance, gas):	N/A
upper/lower explosive limit:	N/A
vapour pressure:	not determined
vapour density:	not determined
density:	approx. 1,0 g/cm ³
solubility:	Insoluble in water, soluble in organic solvents
n-octanol/water partition coefficient:	not determined
self-ignition temperature:	not determined
decomposition temperature:	not determined
explosive properties:	not demonstrated
oxidative properties:	not demonstrated
viscosity:	not determined

9.1 Other information

Dropping point **> 190°C**



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Section 10: Stability and reactivity

10.1 Reactivity

Reactive product. Does not undergo dangerous polymerisation. See also Section 10.3 -10.5.

10.2 Chemical stability

The product is stable unless properly used and stored.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Avoid direct sunlight, as well as heat and ignition sources.

10.5 Incompatible materials

Avoid exposure to strong oxidants.

10.6 Hazardous decomposition products

Not known.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Corrosive effects / irritating to the skin

Based on available data, the classification criteria are not met.

Serious eye damage / irritating to the eyes

Based on available data, the classification criteria are not met.

Sensitizing effects on the respiratory tract or the skin

Based on available data, the classification criteria are not met.

Mutagenic effects on germ cells

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Harmful effects to reproduction

Based on available data, the classification criteria are not met.

Toxic effects on target organs – single exposure

Based on available data, the classification criteria are not met.

Toxic effects on target organs – repeated exposure

Based on available data, the classification criteria are not met.

Aspiration-related hazards

Based on available data, the classification criteria are not met



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Section 12: Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data for the mixture.

12.3 Bioaccumulative potential

Bioaccumulation is not expected.

12.4 Mobility in soil

It shows low mobility in soil and water.

12.5 Results of PBT and vPvB assessment

N/A

12.6 Other adverse effects

The mixture is not classified as detrimental for the ozone layer.

Section 13: Disposal considerations

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.

Community legal acts: directives of the European Parliament and Council: 2008/98/EC, 94/62/EC.

Domestic legal acts: Journal of Laws of 2013, item 21, Journal of Laws of 2013 item 888.



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Section 14: Transport information

14.1 UN number

Not applicable. The product is not classified as dangerous during transport.

14.2 UN proper shipping name

N/A

14.3 Transport hazard class(es)

N/A

14.4 Packing group

N/A

14.5 Environmental hazards

N/A

14.6 Special precautions for user

N/A

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

N/A

Section 15: Regulatory information

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

The Act of 25th February 2011 on chemical substances and their mixtures (Journal of Laws No. 63, item 322, as amended).

Regulation of the Minister of Health of 10th August 2012 on the criteria and methods of classification of chemical substances and their mixtures (Journal of Laws, item 1018, of 2012, as amended).

Regulation of the Minister of Health of 20th April 2012 on the labelling of hazardous substances and hazardous mixtures and of certain mixtures (Journal of Laws of 2012 item 445, as amended).

Regulation of the Ministry of Labour and Social Policy of 29th November 2002 on the issue of permissible concentrations and intensities of health hazardous factors at workplace (Journal of Laws No. 217, item 1833, as amended).

The Act on Waste of 14th December 2012 (Journal of Laws of 2013, item 21).

The Act of 13th June 2013 on package and package waste management (Journal of Laws of 2013 item 888). Regulation of the Minister of Environmental Protection of 27th September 2001 on the catalogue of waste (Journal of Laws No. 112, item 1206).

Regulation of the Minister of Economy of 21st December 2005 on the principal requirements for personal protective equipment (Journal of Laws No. 259, item 2173).

Regulation of the Minister of Health of 2nd February 2011 on tests and measurements of health harmful factors at workplace (Journal of Laws No. 33, item 166).

Government Statement of 28th May 2013 on the entry into force of the amendments to Annexes A and B of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30th September 1957 (Journal of Laws of 2013 item 815).

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

1272/2008/EC REGULATION (EC) No 1272/2008 of the European Parliament and of the Council 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 Regulation (EC) No 1907/2006.

1999/45/EC Directive of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

790/2009/EC COMMISSION REGULATION (EC) No. 790/2009 of 10th August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures.



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453/2010/EC COMMISSION REGULATION (EU) No. 453/2010 of 20th May 2010, amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

2008/98/EC of the European Parliament and of the Council of 19th November 2008 on waste and repealing certain Directives

94/62/EC of the European Parliament and of the Council of 20th December 1994 on packaging and packaging waste.

15.2 Chemical safety assessment

No chemical safety assessment is required for this mixture.

Section 16: Other information

Full text of H phrases from Section 3 of the Safety Sheet

H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Legend to abbreviations and acronyms

PBT	Persistent Bioaccumulative Toxic
vPvB	very Persistent very Bioaccumulative
TLV	Threshold Limit Value
TLV-STEL	Threshold Limit Value Short-Term Exposure Limit
TLV-C	Threshold Limit Value Ceiling Limit
BLV	Biological Limit Values
DNEL	Derived No-Effect Level
Skin Irrit. 2	Skin irritating effects category 2
Eye Irrit. 2	Eye irritating effects category 2
Repr. 2	Harmful to reproduction – category 2
Eye Dam. 1	Eye damage category 1
Aquatic Acute 1	Hazardous for aquatic life category 1
Aquatic Chronic 1,4	Chronic aquatic hazard - Category 1,4



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Trainings

Prior to product handling, the user should be knowledgeable about the Occupational Health and Safety Principles in handling of chemicals and, in particular, undergo workplace specific hands-on training. People connected with transportation of hazardous goods according to ADR agreement should be also trained within the scope of their responsibilities (general trainings, workplace trainings, safety trainings).

Additional information

The classification has been based on the data of the contents of hazardous components, obtained by a calculation method, based on 1272/2008/EC Directive (CLP) as amended.

Amendments: section 2,3,8,12,14,15,16
MSDS prepared by: Aleksandra Gendek (based on the manufacturer's data)
MSDS issued by: "THETA" Technical Consulting

The above information has been based on currently available, product characterising data and on the manufacturer's knowledge and experience within this scope. This information does not constitute quality description of the product or a guarantee of specific properties. The provided data should be treated as an aid for safe product handling in transport, storage and use. This does not exempt the user from the responsibility for the proper use of the above information and compliance with all legal standards, applicable in this particular field.

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