

## MATERIAL SAFETY DATA SHEET

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

### Hydrol BIO HETG 46

Made on: 23.04.2004

Updated on: 25.11.2012

Version: 3

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

##### 1.1. Product identifier

Trade name: HYDROL BIO HETG 46

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

###### Identified uses:

Biodegradable hydraulic oil.

###### Uses advised against:

other uses are not recommended.

##### 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 +48 12 66 555 00 / +48 12 66 555 01

No.: Quality-related information: phone +48 13 4384415

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

##### 1.4. Emergency telephone number:

+48 13 4384415 ( in weekdays from 7.00 till 15.00)

In case of emergency call 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 Directive (EC) No. 1272/2008 (CLP):	According to Council Directive No. 1999/45/EEC
resulting from physicochemical properties:		Not classified	Not classified
for humans:		Not classified	Not classified
for environment:		Not classified	Not classified

##### 2.2. Label elements

Classification according to EC Directive 1272/2008 (CLP).

Pictogram: None

Signal word: None

Hazard statements: None

Precautionary statements: None

##### 2.3. Other hazards

No data regarding PBT or vPvB criteria according to Annex XIII of REACH Regulation.

No test data.

#### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

##### 3.1. Substances – not applicable

##### 3.2. Mixtures: mixture of triglycerides and enriching additives

Hazardous ingredients and its concentrations in the mixture:

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<u>Substance name/ REACH registration number</u>	<u>CAS No/ EC No</u>	<u>Index number</u>	<u>% wt.</u>	Classification according to Council Directive No.67/548/EEC	Classification according to EC Directive No.1272/2008 (CLP)
Zinc alkyl dithiophosphate*	68649-42-3	-	c<0,5	Xi;N R41, R38 R51/53	Aquatic Chronic 2;H411 Eye Dam.1; H318 Skin Irrit 2; H315 Eye irrit.2; H319

\* REACH registration number – not available

For R phrases and risk phrases – see section 16 of safety data sheet.

## SECTION 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Inhalation:

Remove the victim (move/carry) from the exposure area to fresh air and keep warm and quiet. Place an unconscious person in the recovery position, loosen tight parts of clothes; control and maintain patency of the airways. Give oxygen in the case of breathing disorders; if not breathing, use artificial ventilation. In the case of loss of consciousness, respiratory disorders or persisting symptoms obtain medical aid immediately.

#### 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.

NOTE: Do not use a stream of water which is too strong, it may damage the cornea.

#### Swallowing:

Obtain medical aid immediately. DO NOT INDUCE VOMITING – INCREASED ASPIRATION RISK. In the case when spontaneous vomiting occurs, keep the victim leaning forward, with her/his face directed to the ground. If the victim is conscious, let her/him drink approx. 200 ml of liquid paraffin. Do not give milk, fat or alcohol.

### 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

**Suitable extinguishing media:** carbon dioxide, dry powder, foam.

**Unsuitable extinguishing media:** water jet.

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

Flammable liquid with high ignition temperature. In the fire environment smokes containing carbon oxides and other unidentified thermal decomposition products of higher hydrocarbons are formed. Avoid breathing products being released in the fire environment - they may be hazardous for health.

### 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. In the case of great leakage isolate the endangered area. Ensure that breakdown and its results are eliminated by a properly trained staff only.

Avoid contact with the eyes, skin and clothes. Do not inhale vapours or mist. If release occurred in closed area, ensure adequate ventilation.

NOTE: Spilled oils can make surfaces slippery.

Remove ignition sources, extinguish open fire, do not smoke.

### 6.2. Environmental precautions

If it is possible and safe, stop or limit product release. Limit spreading of the great leakages by embanking the area. 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

Cover up small spillage with non-flammable, neutral absorbent material (sand, soil, diatomic earth, vermiculite) and collect in an appropriate, closed, labelled waste bin. Clean the contaminated area with water with detergent, and then rinse with water. Pump off large amounts of liquid. Dispose of 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. Use the services of professional waste transport/ utilization companies.

### 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

**Intoxication prevention:** Prevent formation of vapour/fog concentration exceeding the acceptable occupational exposure limits. Provide effective ventilation. Avoid contact with the eyes, skin and clothes. Avoid vapour and fog inhalation. 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.

**Fire and explosion prevention:** Do not use open fire, do not smoke, eliminate other ignition sources.

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

Store in tightly sealed and properly labelled containers, in a cool, well ventilated place with a non-absorbing ground. The product may be stored in storage tanks in accordance with applicable regulations. Store far from heat sources, protect from direct sunlight. Protect against contamination and water accumulation. Keep away from strong oxidisers.

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

None.

### SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT

#### 8.1. Control parameters

For the product – not applicable

*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; with later amendments)*

#### 8.2. Exposure controls

Recommended methods of exposure assessment in the air:

- PN-Z-04008-7:2002 – "Air purity protection -- Sampling methods -- Principles of air sampling in work place and interpretation of results"
- PN-Z-04108-6:2006 „Air purity protection -- Determination of mineral oil (liquid phase aerosol) in work places by absorption spectrometry method in ultra-violet ”.
- PN-Z-04108-5:2006 „Air purity protection -- Tests for content of oils -- Determination of mineral oil (liquid phase of aerosol) in work places by absorption spectrometry method in infra-red"

#### Appropriate engineering controls:

Use in well ventilated areas or outdoors.

#### 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:

Does not require special protection, although to minimize the potential risk, use of protective clothing and 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. 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 around storage tanks.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

- |  |   |
|--|---|
| a) Appearance  | : Liquid, colour: light yellow to brown |
| b) Odour   | : characteristic for oil                |
| c) Odour threshold   | : No data available                     |
| d) pH  | : Not applicable                        |
| e) Melting/solidification temperature                            | : approx. -30°C (pour point)            |
| f) Initial boiling temperature and melting temperature range     | : No data available                     |
| g) Ignition point  | : >200°C                                |
| h) Evaporation rate  | : No data available                     |
| i) Flammability (solid, gas)                                     | : Not applicable                        |
| j) Upper/lower flammability limit or upper/lower explosion limit | : Not applicable                        |

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k) Vapour pressure	: No data available
l) Vapour density	: No data available
m) Relative density	: approx. 0,93 g/cm <sup>3</sup> at 15°C
n) Solubility	: Insoluble in water. Soluble in hydrocarbon solvents.
o) Distribution coefficient n-octanol/ water	: Not determined
p) Self-ignition point	: Not determined
q) Decomposition temperature	: No data available
r) Viscosity	: approx. 46 mm <sup>2</sup> /s at 40°C
s) Explosive properties	: Not applicable
t) Oxidizing properties	: Not applicable

#### 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, fat solvents

#### 10.6. Hazardous decomposition products

None known. Hazardous combustion products – see section 5 of the Safety Data Sheet.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Acute toxicity:** non-toxic product

#### **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. High concentrations of vapours/mist or liquid splashing to the eye may cause irritation of eye mucosa (burning, tearing and redness) or transient eye irritation.

#### **Respiratory or skin sensitisation:**

Classification criteria have not been met based on the available data. Mild skin irritation, redness, skin drying and cracking, dermatological changes possible at frequent or prolonged contact.

#### **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:**

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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.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity:

#### **Aquatic environment:**

CL50 ( for fresh-water fish)– no quantitative data

EC 50 (for crustaceans)- no quantitative data

EC 50 ( for algae )- no data

#### **Land environment:**

Toxicity test on invertebrates: no data

Toxicity test on plants: no data

Toxicity test on birds: no data

### 12.2. Persistence and degradability

#### **Biotic:**

No specific data available.

#### **Abiotic:**

Hydrolysis as pH function: no data available.

Photolysis/ Phototransformation: no data available.

### 12.3. Bioaccumulative potential

No specific data available.

### 12.4. Mobility in soil

Adsorption/desorption test – no data available

### 12.5. Results of PBT and vPvB assessment

Mixture ingredients – no data available.

### 12.6. Other adverse effects

No data.

## SECTION 13. HANDLING OF WASTES

### 13.1. Waste treatment methods

Waste code: **020304**

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.

Soaked clothes, papers or other organic materials should be collected and utilised in an controlled way.

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 27 April 2001 on wastes (Dz.U. no. 62, item 628 with amendments)*

*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)*

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#### 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

The Act of 25 February 2011 on chemical substances and mixtures ( Dz.U. of 2011 No. 63, item 322)

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 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)

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 has not made chemical safety assessment of the product yet.

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#### SECTION 16. OTHER INFORMATION

##### Update range:

Not applicable

##### 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:

- 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 R-phrases, hazard statements, S-phrases or precautionary statements not specified in whole in sections 2-15 of the Safety Data Sheet.**

##### The list of applicable R-phrases in Section 3

- R38 – Irritating to skin
- 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
- N – dangerous for environment

##### The list of applicable H-phrases in Section 3

- H315 – Irritating to skin.
- H318 – Causes serious eye damage.
- H319 – Irritating to eyes.
- H411 - Toxic to aquatic life with long lasting effects.

##### The list of applicable CLP classification phrases

- Eye Dam. 1 – Serious eye damage/ irritant to eyes, cat. 1
- Skin Irrit. 2 – Irritating to skin, cat. 2
- Eye Irrit. 2 – Irritating to eyes, cat. 2
- Aquatic Chronic 2 - Hazardous to aquatic environment, cat. 2 (chronic)

##### 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.,



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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.

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