



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1 Latest revision: 03. 05. 2023 Date of issue: 20. 06. 2007 Page: 1/(13)

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

1.1. Product identifier:

MOL Hydro HM 46 hydraulic oil

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

Relevant identified uses: hydraulic oil

Uses advised against: application other than the above.

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

MOL-LUB Lubricant Production Distribution and Service Ltd.

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 34 526 330 / +36 34 526 391

E-mail: kenoanyag@mol.hu

Request SDS of:

MOL-LUB Lubricant Production Distribution and Service Ltd.

Customer Service Center

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 80 201 296 / +36 34 348 010

Responsible for SDS:

MOL LUB Kft.

Tel: +36 80 201 296

E-mail: EBKHelpdesk@MOL.hu

1.4. Emergency telephone number

Emergency telephone (07-15²⁰ h): +36 34 526 210 (CET) on workdays

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián út 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Class and Category:

Not classified.

Hazard statement:

-

SAFETY DATA SHEET



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 2/(13)

2.2. Label elements

Product identifier: Trade name: **MOL Hydro HM 46 hydraulic oil**

Hazardous component(s): -

GHS Pictogram: Not required.

Signal word: Not required.

Hazard statement:

Not required.

Supplemental hazard information:

EUH210 Safety data sheet available on request.

Precautionary statements – General: -

Precautionary statements – Prevention:

P273 Avoid release to the environment.

Precautionary statements – Response: -

Precautionary statements – Storage: -

Precautionary statements – Disposal:

P501 Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger: Not required.

Transport classification: see section 14.

2.3. Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006.

Endocrine disrupting properties: no data.



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 3/(13)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical description: Mixture of refined mineral base oils containing additives.

Component(s) / Hazardous component(s):

Name	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/ m)
Distillates (petroleum), solvent-dewaxed heavy paraffinic* REACH Registr. Nr.: 01-2119471299-27	265-169-7	64742-65-0	- (Note L)	-	<100
Distillates (petroleum), solvent-dewaxed light paraffinic REACH Registr. Nr.: 01-2119480132-48	265-159-2	64742-56-9	Asp. Tox. 1 (Note L)	H304	max. 25
Residual oils (petroleum), solvent-dewaxed* REACH Registr. Nr.: 01-2119480472-38	265-166-0	64742-62-7	- (Note L)	-	max. 6
Zinc alkyl dithiophosphate** REACH Registr. Nr.: 01-2120742271-64	272-028-3	68649-42-3	Eye Dam. 1 Aquatic Chronic 2	H318 H411	<0.3

*: with exposure limit

**Specific concentration limit: Skin Irrit. 2; : $C \geq 5 \%$;

Eye Dam. 1; : $C > 10 \%$; Eye Irrit. 2; : $5 \% \leq C \leq 10 \%$.

Note L:

The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove the affected person to fresh air. If rapid recovery does not occur, obtain medical attention.

SAFETY DATA SHEET



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 4/(13)

Skin contact: Wash skin with large amounts of water, use soap. In case of persistent irritation, get medical attention.

Eye contact: Flush eyes with plenty of water for 10-15 minutes. In case of persistent irritation, get medical attention.

Ingestion: If swallowed, give water. **Do not** induce vomiting. Get medical attention.

Protection of first-aid person: No individual specifications.

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

Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity.

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

Not required.

SECTION 5: Fire-fighting measures

Fire hazards:

Combustible.

5.1. Extinguishing media

Suitable extinguishing media:

Foam, carbon dioxide, dry chemical powder.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

On burning, carbon monoxide, carbon dioxide, sulphur oxides, phosphor oxides, various hydrocarbons and soot can be formed.

5.3. Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations.

Further information:

Collect contaminated firefighting water separately. It must not enter the sewage system.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC



MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 5/(13)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

Danger of slipping on leaked out/spilled product.

6.2. Environmental precautions:

Confine spills to prevent material from entering sewers, watercourses, drains and into soil
Notify relevant authority.

6.3. Methods and material for containment and cleaning up

On soil: All kind of ignition sources should be removed. Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid by pumping.
Dispose of according to local regulations.

On water: Confine the spillage. Remove from surface by skimming or suitable absorbents. Notify local authorities according to regulations.

6.4. Reference to other sections

Personal precautions: see Section 8.

Waste treatment methods: see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep general measures applied for normal operations with lubricants.

Keep away from radiant heat and open flame.

Avoid contact with skin and eyes. Avoid prolonged breathing of oil vapours or mists.

Ensure washing facilities after working hours and before breaks.

Take off contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke. Avoid splashing the product.

Handling temperature: no data.

7.2. Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of flammable liquids.

Store in dry, well-ventilated place in original, closed containers.

Keep away from radiant heat, open flame and strong oxidizing agents.

Storage temperature: max. 40°C.

7.3. Specific end use(s)

Hydraulic oil.



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 6/(13)

SECTION 8: Exposure controls / personal protection

8.1. Control parameters:

Mineral oil mist: TWA: **5 mg/m³**; STEL: 10 mg/m³, for oil mist, vapour excluded (ACGIH).

Method of testing, recommended: NIOSH 5026

8.2. Exposure controls

Engineering control measures:

Not required.

Personal protection:

(a) Eye/face protection

Where splashing is possible, wear safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

Oil resistant gloves (EN 374, Breakthrough time 480 min) (e.g. nitrile rubber – minimal thickness 0.33 mm).

Note: Manufacturer's directions for use and the conditions of application should be observed.

(ii) Other

Protective clothing (oil resistant).

(c) Respiratory protection

Under normal conditions not required. In case of exceeded exposure-limits respiratory protection with particle-filter is recommended.

(d) Thermal hazards

No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Physical state:

liquid

b) Colour:

yellow, bright, clear

c) Odour:

characteristic

d) Melting point/freezing point (Pour point) (ISO 3016):

-27°C

e) Boiling point or initial boiling point and boiling range (DIN 51356):

not available

f) Flammability:

combustible

g) Lower and upper explosion limit:

not explosive



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 7/(13)

h) Flash point (COC) (EN ISO 2592):	225°C
i) Auto-ignition temperature:	not available
j) Decomposition temperature:	not available
k) pH:	not applicable
l) Kinematic viscosity (EN ISO 3104:1996):	
at 40°C:	44.5 mm ² /s
at 100°C:	6.5 mm ² /s
m) Solubility	
Solubility in water:	practically insoluble in water
Solubility in other solvents:	gasoline, kerosene, toluene, etc.
n) Partition coefficient n-octanol/water (log value):	not available
o) Vapour pressure at 20°C:	negligible
p) Density and/or relative density at 15°C (DIN EN ISO 12185):	0.865 – 0.885 g/cm ³
q) Relative vapour density:	not available
r) Particle characteristics:	not available

9.2. Other information

Oxidizing properties:	not oxidize
Heating value:	inf. 38 000 kJ/kg

SECTION 10: Stability and reactivity

10.1. Reactivity:	Dangerous reactivity not known.
10.2. Chemical stability:	No decomposition if stored and handled properly.
10.3. Possibility of hazardous reactions:	Not known
10.4. Conditions to avoid:	Direct heat or ignition sources.
10.5. Incompatible materials:	Strong oxidizing agents.
10.6. Hazardous decomposition products:	No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5.



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 8/(13)

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Oral:	LD ₅₀ (rat)	> 2000 mg/kg	(based on components)
Dermal:	LD ₅₀ (rabbit)	> 2000 mg/kg	(based on components)

Components:

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS: 64742-65-0)

Oral:	LD ₅₀ (rat)	> 5000 mg/kg
Dermal:	LD ₅₀ (rabbit)	> 2000 mg/kg
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L

Distillates (petroleum), solvent-dewaxed light paraffinic (CAS: 64742-56-9)

Oral:	LD ₅₀ (rat)	> 5000 mg/kg	(literature data)
Dermal:	LD ₅₀ (rabbit)	> 2000 mg/kg	(literature data)
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L/4 h	(literature data)

Residual oils (petroleum), solvent-dewaxed (CAS: 64742-62-7)

Oral:	LD ₅₀ (rat)	> 5000 mg/kg	(OECD 401)
Dermal:	LD ₅₀ (rabbit)	> 5000 mg/kg	(OECD 402)
Inhalation:	LC ₅₀ (rat)	> 5.53 mg/L/4 h	(OECD 403)

Zinc alkyl dithiophosphate (CAS: 68649-42-3)

Dermal:	LD ₅₀ (rat)	> 2000 mg/kg
Oral:	LD ₅₀ (rat)	2230 mg/kg
Oral:	LD ₅₀ (rat)	3100 mg/kg

Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data.



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 9/(13)

SECTION 12: Ecological information

12.1. Toxicity No data for the product.

Components:

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS: 64742-65-0)

Fish: LC₅₀ > 100 mg/L

Daphnia: EC₅₀ > 100 mg/L

Other aquatic organisms: EC₅₀ > 100 mg/L

Other living beings: TLM > 1 mg/L

Distillates (petroleum), solvent-dewaxed light paraffinic (CAS: 64742-56-9)

Fish: LC₅₀ > 100 mg/L

Other aquatic organisms: EC₅₀ > 100 mg/L

Algae: ErC₅₀ > 100 mg/L

Crustacea: NOEC > 1 mg/L

Residual oils (petroleum), solvent-dewaxed (CAS: 64742-62-7)

Fish (Pimephales promelas): LL₅₀ > 100 mg/L/96 h (OECD 203)

Fish: NOEL ≥ 100 mg/L

Daphnia (Daphnia magna): EL₅₀ > 10 000 mg/L/48 h (OECD 202)

Daphnia: NOEL ≥ 1000 mg/L

Daphnia: NOEL 10 mg/L/21 days (OECD 211)

12.2. Persistence and degradability

Biodegradability: Hydrocarbons are inherently degradable.

12.2. Persistence and degradability

No data available.

Biodegradability: No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil:

Absorbs in soil.

Mobility in water:

Floats on water.

12.5. Results of PBT and vPvB assessment

Does not contain PBT and vPvB substances.

12.6. Endocrine disrupting properties

No data.

12.7. Other adverse effects

Heavy metal content:

None.

PCT, PCB and other chlorinated hydrocarbons:

None.

Environmental effects:

Large spills may be hazardous to the environment. Spills may form a film on water surfaces causing impaired oxygen transfer.

Water hazard class (German):

WGK 1 (Classification by AwSV)



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 10/(13)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

Waste Identification Code: 13 01 10*

Mineral based non-chlorinated hydraulic oils.

Waste Identification Code: 13 02 05*

Mineral-based non-chlorinated engine, gear and lubricating oils.

Disposal must be in compliance with national and local regulations.

Recommended waste treatment method: incineration

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Waste Identification Code: 15 01 10*

Packaging containing residues of or contaminated by dangerous substances.

Disposal must be in compliance with national and local regulations.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

SECTION 14: Transport information

Land transport:

Road/ Railway

ADR/RID:

Not classified.

14.1. UN number or ID number:

Not classified.

14.2. UN proper shipping name:

Not classified.

14.3. Transport hazard class(es):

Not classified.

14.4. Packing group:

Not classified.

14.5. Environmental hazards:

Not classified.

14.6. Special precautions for user:

Not classified.

14.7. Maritime transport in bulk according to IMO instruments

Does not apply.

Waterways:

Inland waterways/ Sea transport

ADN/IMDG:

Not apply to the product.

Air transport:

ICAO / IATA:

Not apply to the product.



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 11/(13)

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.
Seveso category: not classified.
- 15.2. Chemical safety assessment.
not available

SECTION 16: Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.
The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)
Not classified.

The full text of each relevant H- phrase and Hazard classes and cat. in Section 3.:

H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
Asp. Tox. 1	Aspiration hazard Category 1.
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, Chronic Category 2



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 12/(13)

Legend:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labelling
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (1272/2008/EC)
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec _x	Effective Concentration x%
ErC ₅₀	EC ₅₀ in terms of reduction of growth rate
Ed _x	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC _x	Lethal Concentration x%
LD _x	Lethal Dose x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative



SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: **MOL Hydro HM 46 hydraulic oil**

Version: 9.1

Latest revision: 03. 05. 2023

Date of issue: 20. 06. 2007

Page: 13/(13)

Revision Indicators:

Section	Subject of change	Date	Version
3 1-16	Ingredients / Hazardous components Other corrections	10. 08. 2009	2
1-16	Regulatory information, other corrections	13. 10. 2010	3
3 9 1-16	Composition/information on ingredients Physical and chemical properties Revision modification according to 1272/2008/EC and 453/2010/EC	10. 10. 2012	4
3 9 1-16	Composition/information on ingredients Physical and chemical properties Regulatory information, other corrections.	16. 04. 2014	5
1 2 5 12 14 1-16	Details of the supplier of the safety data sheet, Responsible for SDS Other hazards Fire hazards Ecological information Transport information Other corrections, revision modification according to 2015/830 /EC	02. 07. 2015	6
3	Composition/information on ingredients	21. 10. 2015	7
2.2, 14 3 9 1-16	Regulatory information Composition/information on ingredients Physical and chemical properties Other corrections	05. 03. 2018	8
1-16	Revision modification according to 2020/878/EU Full revision due to composition change	09. 06. 2022	9
2.3 14	Other hazards Transport information	03. 05. 2023	9.1