

SAFETY DATA SHEET

MOL-LUB Ltd.

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 1/(8)

1. Identification of the substance / preparation and of the company

Product name:

MOL Hykomol LS 85W-90

Product type / recommended uses:

preparation / limited slip gear oil

Manufacturer / Supplier identification:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

H-2931 Almásfüzitő, Fő u. 21., Hungary

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

Request SDS of:

MOL-LUB Lubricant Production Trade and Service Limited Liability Company

Customer Service Center

H-2931 Almásfüzitő, Fő u. 21., Hungary

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

Responsible for SDS:

MOL-LUB Ltd. Csaba Horváth, head of HSE and QOP

Phone: +36 34 526 343; Mobile: +36 20 474 2644

e-mail: csahorvath@mol.hu

Technical information:

MOL-LUB Ltd. Product Development and Technical Service

H-1117 Budapest, Október huszonharmadika u. 18., Hungary

Phone/Fax: +36 80 201 296 or +36 1 464 0236 / +36 1 464 0304

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

Health Toxicological Information Service (ETTSZ 1096 Budapest, Nagyvárad tér 2.)

Tel.: +36 1 476 6464, or +36 80 201 199

2. Hazards identification

Human health hazards: Danger symbol not required.

Note: Prolonged and/or repeated contact may cause irritation and/or skin sensitization, depending on individual sensitivity (see also Protective equipment).

Safety hazards: Danger symbol not required.

Environmental hazards: Danger symbol not required.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Note: Spills may form a film on water surfaces causing impaired oxygen transfer.

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 2/(8)

3. Composition / information on ingredients

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

Ingredients / Hazardous components:

Name	EINECS number	CAS number	Hazard symbol	Risk phrase	Conc. %(m/m)
Lubricating oils (petroleum), C17-C32*	309-875-6	101316-70-5	-	-	max. 75
Lubricating oils (petroleum), C24-C50*	309-877-7	101316-72-7	-	-	max. 20
Alkenyl amine	204-015-5	112-90-3	C, N	R 22, R 34, R 43, R 50	max. 0.7
Substituted thiadiazole	300-298-5	93925-00-9	Xi	R 38, R 41, R 43, R 52/53	max. 0.35
Olefin sulphide	confidential		-	R 53	max. 4.5
Phosphoric acid esters, amine salt	confidential		N	R 51/53	max. 2.0

*: with exposure limit

The full text of each relevant R phrase see in Section 16.

4. 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.

Skin contact: Wash skin with large amounts of water, use soap. Remove contaminated clothing. 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.

Note to physician:

5. Fire-fighting measures

Fire hazards:

Moderately hazardous (see also Section 9 - flash point).

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 3/(8)

Suitable extinguishing media:

Foam, carbon dioxide, dry chemical powder.

Unsuitable extinguishing media:

Water jet.

Hazardous decomposition products:

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

Special protective equipment:

According to the existing fire-fighting regulations.

Further information:

-

6. Accidental release measures

Personal precautions:

See Section 8.

Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid. All kind of ignition sources should be remove. Notify relevant authority.

Clean-up procedures / recovery

On soil: 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.

7. Handling and storage

Handling:

Keep away from radiant heat and open flame.

Keep general measures applied for normal operations with lubricants. No special requirements.

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

Handling temperature:

Storage:

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

8. Exposure controls / personal protection

Engineering control measures:

Not required.

Exposure limits:

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

Method of testing, recommended: NIOSH 5026

Personal protection:

Respiratory protection: Breathing apparatus not required.

Hand protection: Oil resistant gloves (EN 374, Breakthrough time 480 min; Permeation performance level: 6) (e.g. nitrile rubber – minimal thickness 0.33 mm).

Eye protection: Protective goggles not required.

Skin protection: Protective clothing (oil resistant).

Other special:

General protective measures / hygiene:

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 or oil-soaked clothing, wash with warm water and soap.

9. Physical and chemical properties

Appearance:

Physical state: liquid

Colour: brown, clear

Odour: characteristic

Change in physical state:

Pour point (ISO 3016): typ. -24°C

Boiling point:

Others:

Flash point (COC) (EN ISO 2592): typ. 220°C

Ignition point (EN ISO 2592): not available

Autoignition temperature: not available

Explosive properties: not explosive

Oxidizing properties:

Vapour pressure at 20°C: negligible

Density at 15°C (EN ISO 12185): typ. 0.912 g/cm³

Solubility in water: practically insoluble in water

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 5/(8)

Solubility in other solvents:	gasoline, kerosene, toluene, etc.
n-Octanol/water partition coefficient:	not available
Vapour density:	not available
Evaporation rate:	not available
Heating value:	inf. 38 000 kJ/kg
Kinematic viscosity at 40°C (EN ISO 3104):	typ. 190 mm ² /s
Kinematic viscosity at 100°C (EN ISO 3104):	typ. 16.5 mm ² /s
pH:	not applicable

10. Stability and reactivity

Stability:	No decomposition if stored and handled properly.
Conditions to avoid:	Direct heat or ignition sources.
Materials to avoid:	Strong oxidizing agents.
Hazardous decomposition products:	On burning, carbon monoxide, carbon dioxide, sulphur oxides, nitrogen oxides, phosphor oxides, various hydrocarbons and soot can be formed.

Notes:

11. Toxicological information

Acute toxicity:

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

Acute toxicity: irritation

Skin:	not irritant (based on components)
Eye:	not irritant (based on components)
Note:	Prolonged and/or repeated contact may cause irritation and/or skin sensitization, depending on individual sensitivity.

Sensitization: not sensitising (based on components), but may produce an allergic reaction

Chronic toxicity: not known

Other information, specific effects:

The product does not contain PCBs, PCTs, and other chlorine compounds, and heavy metals, barium compounds.

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 6/(8)

The base oil(s) contain(s) less than 3% DMSO extract (IP 346), therefore not classified as carcinogenic material according to 67/548/EEC NOTE L.

Carcinogen effect: not known, resp. not carcinogen (based on components)

Mutagen effect: not known, resp. not mutagen (based on components)

Reproduction-damaging effect: not known, resp. no reproduction-damaging effect (based on components)

12. Ecological information

Mobility: Floats on water. Absorbs on soil.

Degradability / persistence:

Biodegradability:

Bioaccumulative potential:

Ecotoxicity: Not available.

Aquatic organisms:

Soil organisms:

Plants:

Biological oxygen demand:

Chemical oxygen demand:

Heavy metal content: None.

PCT, PCB and other chlorinated hydrocarbons: None.

Environmental effects: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Spills may form a film on water surfaces causing impaired oxygen transfer.

Water hazard class (German):

13. Disposal considerations

Product disposal:

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

EWC cod: 13 02 05*

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

Disposal must be in compliance with national and local regulations.

Trade name: **MOL Hykomol LS 85W-90 limited slip gear oil**

Version: 1

Latest revision:

Date of issue: 20. 06. 2007

Page: 8/(8)

16. Other information

Recommended application / restrictions:

See product sheets.

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.

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006, Directives 88/379/EEC and 1999/45/EC.

Source of data presented in this material safety data sheet:

Test results of this product

Material safety data sheets of product's components

Hungarian and EU lists of dangerous substances

Relevant Hungarian regulation and EU directives

CONCAWE database

The full text of each relevant R phrase in Section 3.:

R 22 Harmful if swallowed

R 34 Causes burns

R 38 Irritating to skin

R 41 Risk of serious damage to eyes

R 43 May cause sensitisation by skin contact

R 50 Very toxic to aquatic organisms

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 53 May cause long-term adverse effects in the aquatic environment

Revision Indicators:

Section	Subject of change	Date	Version