



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9 Latest revision: 28. 11. 2018 Date of issue: 20. 06. 2007 Page:1/(13)

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

1.1 Product identifier:

MOL Dynamic Max 10W-40 semi-synthetic motor oil

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

Relevant identified uses: semi-synthetic motor oil

Uses advised against: no data

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 Ltd. Csaba Horváth, head of SD, HSE & Business Support

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

e-mail: csahorvath@mol.hu

1.4 Emergency telephone number

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

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

Tel.: +36 80 201 199 (0-24 h, free number).

National Health Toxicological Information Service:

SECTION 2 Hazards identification

2.1 Classification of the mixture or substance

Hazard Class and Category:

Eye Irrit. 2

Aquatic Chronic 3

Hazard statement:

H319

Causes serious eye irritation.

H412

Harmful to aquatic life with long lasting effects.



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:2/(13)

2.2 Label elements

Product identification: Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Hazardous components: -

GHS Pictogram:



Signal word: **Warning**

Hazard statement:

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Supplemental hazard information:

EUH208 Contains calcium long chain alkaryl sulfonate. May produce an allergic reaction.

Precautionary statements – General: -

P101 If medical advice is needed, have product container or label at hand

P102 Keep out of reach of children

Precautionary statements – Prevention:

P280 Wear eye protection.

P273 Avoid release to the environment.

Precautionary statements – Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

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.



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9 Latest revision: 28. 11. 2018 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	EU number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Base oil – unspecified, hydrotreated heavy paraffinic, C20-C50* REACH Registr. Nr.: 01-2119484627-25	265-157-1	64742-54-7	- (Note L)	-	max.50
Lubricating oils (petroleum), C18-40* REACH Registr. Nr.: 01-2119486987-11	305-594-8	94733-15-0	- (Note L)	-	max. 35
Polyolefin polyamine succinimide, polyol	604-611-9 (polymer)	147880-09-9	Aquatic Chronic 4	H413	max. 2.8
Zinc dialkyl dithiophosphate REACH Registr.Nr.: 01-2119657973-23	272-028-3	68784-31-6	Eye Dam. 1 Aquatic Chronic 2	H318 H411	max. 1.2
Bis(nonylphenyl)amine REACH Registr. No.: 01-2119488911-28	253-249-4	36878-20-3	Aquatic Chronic 4	H413	max. 1.2
Calcium long chain (C20-26) alkaryl sulfonate	polymer	722503-69-7	Aquatic Chronic 4	H413	max. 1.2
Calcium long chain alkaryl sulfonate	polymer	722503-68-6	Skin Sens. 1B Aquatic Chronic 4	H317 H413	max. 0.6
Phenol, dodecyl-, branched REACH Registr.Nr.: 01-2119513207-49	310-154-3	121158-58-5	Skin Corr. 1C Eye Dam. 1 Repr. 1B Aquatic Acute1 Aquatic Chronic 1	H314 H318 H360F H400 (M=10) H410 (M=10)	max. 0.04

*: with exposure limit

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



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:4/(13)

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. In case of a complaint, call medical attention.

Skin contact: Remove contaminated clothing. Wash skin with large amounts of water, use soap. In case of a complaint, get medical attention.

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 10-15 minutes. In case of a complaint, 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

May cause an allergic skin reaction.

Causes serious eye irritation.

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

4.3 Indication of any immediate medical attention and special treatment need

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:

Water jet.

5.2 Special hazards arising from the mixture or substance

Hazardous combustion products:

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



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:5/(13)

5.3 Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations. Respiratory protection.

Further information:

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

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

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 remove. 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 and flammable materials.

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



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9 Latest revision: 28. 11. 2018 Date of issue: 20. 06. 2007 Page:6/(13)

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)

Semi-synthetic motor oil.

SECTION 8 Exposure controls / personal protection

Engineering control measures:

Not required.

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

Personal protection:

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

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.

Eye protection: Protective goggles, if splashes may occur (EN 166)

Skin protection: Protective clothing (oil resistant).

Other special: no data

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:7/(13)

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state:	liquid
Colour:	brown, bright, clear
Odour:	characteristic

Change in physical state:

Pour point (ISO 3016):	typ. -39°C
Boiling point (DIN 51356):	not available

Others:

Flash point (COC) (EN ISO 2592):	typ. 230°C
Ignition point (EN ISO 2592):	not available
Autoignition temperature:	not available
Explosive properties:	not explosive
Oxidizing properties:	not oxidize
Vapour pressure at 20°C:	negligible
Density at 15°C (EN ISO 12185):	0.845-0.865 g/cm ³
Solubility in water:	practically insoluble in water
Solubility in other solvents:	gasoline, kerosene, toluene, etc.
n-Octanol/water partition coefficient:	not available
Vapour density:	not available
Heating value:	inf. 38 000 kJ/kg
Kinematic viscosity at 40°C (EN ISO 3104):	93.2 mm ² /s
Kinematic viscosity at 100°C (EN ISO 3104):	14.5 mm ² /s
pH:	not applicable

9.2 Other information

no data available

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 Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:8/(13)

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Oral: LD₅₀ (rat) > 2000 mg/kg (based on components)

Dermal: LD₅₀ (rabbit) > 2000 mg/kg (based on components)

Acute toxicity: irritation

Skin: not irritant (based on components)

Eye: irritant (based on components)

Respiratory or skin sensitisation: not sensitising (based on components), but may produce an allergic reaction

Other information, specific effects:

NOTE L: The base oil(s) contain(s) less than 3% DMSO extract (IP 346), therefore not classified as carcinogenic material according to 1272/2008/EC.

Germ cell mutagenicity: not known, resp. not mutagen (based on components)

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

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

STOT-single exposure: not classified

STOT-repeated exposure: not classified

Aspiration hazard: not classified

SECTION 12 Ecological information

12.1 Toxicity Not available.

Aquatic organisms:

Soil organisms:

Plants:

12.2 Persistence and degradability No data available.

Biodegradability: No data available.

12.3 Bioaccumulative potential No data available.

12.4 Mobility

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.



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:9/(13)

12.6 Other adverse effects

Heavy metal content:	None.
PCT, PCB and other chlorinated hydrocarbons:	None.
Environmental effects:	Harmful to aquatic life with long lasting effects.
Water hazard class (German):	WGK 2 (Classification by VwVwS)

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 02 05*

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

Waste Identification Code: 13 02 06*

Synthetic engine, gear and lubricating oils.

Disposal must be in compliance with national and local regulations.

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.

Recommended waste treatment method: incineration

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.



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:10/(13)

SECTION 14 Transport information

Land transport:

Road/ Railway

ADR/RID:

Not classified.

- 14.1. UN number: -
14.2. UN proper shipping name: -
14.3. Transport hazard class(es): -
14.4. Packing group: -
14.5. Environmental hazards: -
14.6. Special precautions for user: -

Waterways:

Inland waterways/ Sea transport ADN/IMDG:

Not apply to the product.

Air transport: ICAO / IATA:

Not apply to the product.

SECTION 15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the mixture.
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2015/830/EU) and to Regulation (EC) 1272/2008.
- 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.

Source of data presented in this material safety data sheet:

Test results of this product

Material safety data sheets of product's components

1272/2008/EC regulation, Annex XVII. of REACH

Relevant Hungarian and EU regulations



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:11/(13)

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)

Eye Irrit. 2 H319 calculation method

Aquatic Chronic 3 H412 calculation method

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

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H360F May damage 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.

Skin Corr. 1C Skin corrosion/irritation Category 1C

Skin Sens. 1B Respiratory/skin sensitization Category 1B

Eye Dam. 1 Serious eye damage/eye irritation Category 1

Repr. 1B Reproductive toxicity Category 1B

Aquatic Acute 1 Hazardous to the aquatic environment, Acute Category 1

Aquatic Chronic 1 Hazardous to the aquatic environment, Chronic Category 1

Aquatic Chronic 2 Hazardous to the aquatic environment, Chronic Category 2

Aquatic Chronic 4 Hazardous to the aquatic environment, Chronic Category 4

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 Labeling

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging

CMR Carcinogenic, Mutagenic or toxic to Reproduction

COD Chemical Oxygen Demand

CSA Chemical Safety Assessment



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9 Latest revision: 28. 11. 2018 Date of issue: 20. 06. 2007 Page:12/(13)

CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec _x	Effective Concentration x%
Ed _x	Effective Dose x%
ELINCS	European List of Notified Chemical Substances
ErC50	EC50 in terms of reduction of growth rate
ES	Exposure Scenario
ESIS	European Chemical Substances Information System
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
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

Revision Indicators:

Section	Subject of change	Date	Version
9	Physical and chemical properties	16.11.2007	2
3	Composition/information on ingredients	24.01.2008	3
2	Hazards identification	23.03.2009	4
3	Composition/information on ingredients		
3	Composition/information on ingredients	22.09.2011	5
1-16	Other corrections, Revision modification according to 453/2010/EC and 1272/2008/EC		



SAFETY DATA SHEET

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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Max 10W-40 semi-synthetic motor oil**

Version: 9

Latest revision: 28. 11. 2018

Date of issue: 20. 06. 2007

Page:13/(13)

Revision Indicators:

Section	Subject of change	Date	Version
3 9	Composition/information on ingredients Physical and chemical properties	20.07.2012	6
1-16	Az 1272/2008/EK rendeletnek való megfeleltetés	26.11.2012	7
1 2 5 9 14 1-16	Details of the supplier of the safety data sheet, Responsible for SDS Hazards identification Fire-fighting measures Physical and chemical properties Transport information Other corrections, Regulatory information Revision modification according to 2015/830/EU	30.06.2015	8
2 3 1-16	Hazards identification Composition/information on ingredients Other corrections	28.11.2018	9