



## SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC **MOL-LUB Ltd.**

Trade name: **MOL Dynamic MK 9 15W-40 multigrade diesel engine oil**

Version: 7    Latest revision: 12. 06. 2018    Date of issue: 20. 06. 2007    Page: 1/(14)

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

- 1.1 Product identifier:  
**MOL Dynamic MK 9 15W-40 multigrade diesel engine oil**
- 1.2 Relevant identified uses of the mixture or substance and uses advised against  
Relevant identified uses: multigrade diesel engine 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 (07-15<sup>20</sup> 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: | Hazard statement:                                       |
|----------------------------|---|
| Eye Irrit. 2               | H319 Causes serious eye irritation.                     |
| Aquatic Chronic 3          | H412 Harmful to aquatic life with long lasting effects. |



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### 2.2 Label elements

Product identification:    Trade name: **MOL Dynamic MK 9 15W-40 multigrade diesel engine 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: -

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:

**P273**    Avoid release to the environment.

**P280**    Wear eye protection.

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.



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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.

## 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*	265-157-1	64742-54-7	- (Note L)	-	max. 85
Distillates (petroleum), solvent-dewaxed heavy paraffinic C20-C50	265-169-7	64742-65-0	- (Note L)	-	max. 85
Lubricating oils (petroleum), C24-C50* REACH Registr. Nr.: 01-2119489969-06	309-877-7	101316-72-7	- (Note L)	-	max. 80
Lubricating oils (petroleum), C18-C40* REACH Registr. Nr.: 01-2119486987-11	305-594-8	94733-15-0	- (Note L)	-	max. 75
Paraffin oils (petroleum), catalytic dewaxed heavy, C20-C50* RECH Registr. Nr.: 01-2119471299-27	265-174-4	64742-70-7	- (Note L)	-	max. 20



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Name	EU number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Distillates (petroleum), dewaxed light paraffinic, hydrotreated REACH Registr. Nr.: 01-2119488517-24	295-301-9	91995-40-3	Asp. Tox. 1 (Note L)	H304	max. 12
Zinc alkyl dithiophosphate	272-028-3	68649-42-3	Skin Irrit. 2 Eye Dam. 1 Aquatic Chronic. 2	H315 H318 H411	max. 1.5
Phenol, 4-dodecyl-	203-202-9	104-43-8	Skin Corr. 1C Skin Irrit. 2 Eye Dam. 1 Repr. 1B Aquatic Acute 1 Aquatic Chronic 1	H314 H315 H318 H360F H400 (M=1) H410 (M=1)	<0,15

\*: with exposure limit

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. In case of complaints, call medical attention.

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

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

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

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

Protection of first-aid person: No individual specifications.



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- 4.2 Most important symptoms and effects, both acute and delayed  
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 dioxide, carbon monoxide, 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. 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.



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### 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. Recover free liquid by pumping. Contain the rest or small quantities with sand, earth or other suitable absorbents. 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: not known

### 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)

Multigrade diesel engine oil.



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### SECTION 8 Exposure controls / personal protection

Engineering control measures:  
Not required.

#### 8.1 Control parameters:

**Mineral oil mist:**                      TWA: **5 mg/m<sup>3</sup>**; STEL: 10 mg/m<sup>3</sup>, for oil mist, vapour excluded (ACGIH).

Method of testing, recommended: NIOSH 5026

#### 8.2 Exposure controls

Personal protection:

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

Hand protection:            Oil resistant gloves (EN 374, Breakthrough time > 480 min, PK power level: 6; PR flow rate: 0).

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.

### SECTION 9 Physical and chemical properties

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

Appearance:

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

Change in physical state:

Pour point (ISO 3016):	typ. -33°C
Boiling point (DIN 51356):	not available



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### 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):	0.870 – 0.890 g/cm <sup>3</sup>
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):	typ. 107.5 mm <sup>2</sup> /s
Kinematic viscosity at 100°C (EN ISO 3104):	typ. 14.6 mm <sup>2</sup> /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.

## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

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





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Acute toxicity: irritation

Skin: not irritant (based on components)

Eye: irritant (based on components), causes serious eye irritation

Respiratory or skin sensitisation: not sensitising (based on components)

Other information, specific effects:

Note L: The classification as a carcinogen need not apply according to 1272/2008/EC, because it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

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	No data for the product.
	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.



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

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.





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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

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.:*

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
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.
Asp.Tox.1	Aspiration hazard Category 1
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
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

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



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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
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec <sub>x</sub>	Effective Concentration x%
Ed <sub>x</sub>	Effective Dose x%
ELINCS	European List of Notified Chemical Substances
ErC <sub>50</sub>	EC <sub>50</sub> 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 <sub>x</sub>	Lethal Concentration x%
LD <sub>x</sub>	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



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### Revision Indicators:

Section	Subject of change	Date	Version
3 1-16	Composition / information on ingredients Revision modification according to REACH (1907/2006/EC)	26.02.2008	2
1 3	Product name Composition / information on ingredients Other corrections	08.02.2010	3
3 1-16	Composition/information on ingredients Revision modification according to 453/2010/EC	13.05.2011	4
2 3 9 11 1-16	Hazards identification Composition/information on ingredients Physical and chemical properties Toxicological information Revision modification according to 1272/2008/EC	27.05.2013	5
1 3 9 1-16	Details of the supplier of the safety data sheet, Responsible for SDS Composition/information on ingredients Physical and chemical properties Other corrections, revision modification according to 2015/830 /EU	14.09.2015	6
2.2 3 9 1-16.	Label elements Composition/information on ingredients Physical and chemical properties Other corrections	12.06.2018	7