

# SAFETY DATA SHEET

**MOL-LUB Ltd.**

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

Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 1/(12)

## 1. Identification of the mixture and of the company/undertaking

### 1.1 Product identifier:

**MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

### 1.2 Relevant identified uses of the mixture and uses advised against

Relevant identified uses: synthetic diesel engine oil

Uses advised against: no data

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

MOL-LUB Lubricant Production Trade and Service Limited Liability Company  
H-2931 Almásfüzitő, Fő út 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 út 21., Hungary  
Phone / Fax: +36 80 201 296 / +36 34 348 010

#### Responsible for SDS:

MOL-LUB Ltd. Csaba Horváth, head of HSE, SD 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 utca 18., Hungary  
Phone/Fax: +36 80 201 296 or +36 1 464 0236 / +36 1 464 0304

### 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 1 476 6464, or +36 80 201 199

National Health Toxicological Information Service:

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

Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 2/(12)

## 2. Hazards identification

### 2.1 Classification of the mixture

#### 2.1.1 Classification of the mixture according to regulation (EC) No 1272/2008

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.

#### 2.1.2 Classification of the substance according to regulation (EC) No 1999/45

Human health hazards:	Danger symbol not required.
Note:	Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity (See also Protective equipment).

Safety hazards:	Danger symbol not required.
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Environmental hazards:	Danger symbol not required.
Note:	Spills may form a film on water surfaces causing impaired oxygen transfer.

### 2.2 Label elements (EC) No 1272/2008

Product identification: Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

GHS Pictogram:



Signal word: **Warning**

Hazard statement:

<b>H319</b>	Causes serious eye irritation.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

Precautionary statements – Prevention:

<b>P273</b>	Avoid release to the environment.
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Precautionary statements – Response:

<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.
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<b>P305 + P351 + P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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**SAFETY DATA SHEET****MOL-LUB Ltd.**

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Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1 Latest revision: Date of issue: 22. 06. 2012 Page: 3/(12)

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  
no data available**3. Composition/information on ingredients**

## 3.1 Mixtures

Chemical description: Mixture of refined mineral oils with additives.

Component(s) / Hazardous component(s):

Name	EINECS number	CAS number	Hazard symbol / Hazard classes and cat.	Risk phrase / Hazard statements	Conc. %(m/m)
1-Decene Homopolymer, Hydrogenated REACH Registr.Nr.: 01-2119486452-34-0000	500-183-1	68037-01-4	67/548/EEC: - 1272/2008/EC: -	- -	max. 30
Base oil – unspecified, hydrotreated heavy paraffinic, C20-C50*  REACH Registr. Nr.: 01-2119474889-13-000	265-157-1	64742-54-7	67/548/EEC: Xn (L megjegyzés) 1272/2008/EC: Asp. Tox. 1 (L megjegyzés)	R 65  H304	max. 40
Lubricating oils (petroleum), C 20-50, hydrotreated neutral oil- based; REACH Regisztr. szám: 01-2119484627-25-0031	276-738-4	72623-87-1	67/548/EGK: - (L megjegyzés) 1272/2008/EK: Asp.Tox.1 (L megjegyzés)	-  H304	
Mineral oil raffinate*		confidenatial	67/548/EEC: - (L megjegyzés) 1272/2008/EC: - (L megjegyzés)	- -	max. 25

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MOL-LUB Ltd.

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






Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1

Latest revision:

Date of issue: 22. 06. 2012

Page: 4/(12)

Name	EINECS number	CAS number	Hazard symbol / Hazard classes and cat.	Risk phrase / Hazard statements	Conc. %(m/m)
Zinc dialkyl dithiophosphate 	272-028-3	68649-42-3	67/548/EEC: Xi, N 1272/2008/EC: Eye Irrit 2 Skin Irrit. 2 Aquatic Chronic 2	R 38, R 51/53  H319 H315 H411	max. 1
Butanedioic acid, 2,3-dihydroxy-, mixed C12-C16-alkyl and C13rich, C11-C14 isoalkyl diesters  REACH Registr.Nr.: 01-0000020152-85	482-100-8		67/548/EEC: Xi 1272/2008/EC: Eye Dam. 1	R 41  H318	max. 1
Zinc alkyl dithiophosphate  REACH Registr.Nr.: 01-2119493626-26	283-392-8	84605-29-8	67/548/EEC:  Xi, N 1272/2008/EC: Skin Irrit 2 Eye Dam. 1 Aquatic Chronic 2	R 41, R 38, R 51/53  H315 H318 H411	max. 0.2
Dodecylphenol, mixed isomers (branched)  REACH Registr.Nr.: 01-2119513207-49	310-154-3		67/548/EEC: Xn, N 1272/2008/EC: Skin Irrit 2 Eye Dam. 1 Aquatic Chronic 2	R 62, R 36/38, R 50/53  H315 H318 H411	max. 0.2
Diphenylamine 	204-539-4	122-39-4	67/548/EEC: T, N 1272/2008/EC: STOT RE 2 Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Aquatic Acute 1 Aquatic Chronic 1	R 23/24/25, R 33, R 50/53  H373 H301 H311 H331 H400 H410	max. 0.2

\*: with exposure limit

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

# SAFETY DATA SHEET

MOL-LUB Ltd.

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

Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 5/(12)

## 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.

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

Eye contact: Immediately flush eyes with large amounts of water for at least 15 minutes. In case of persistent irritation, get medical attention.

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

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

No data available.

### 4.3 Indication of any immediate medical attention and special treatment need

Not required.

## 5. Fire-fighting measures

Fire hazards:

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

### 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

Hazardous combustion products:

On burning, carbon dioxide, carbon monoxide, sulphur oxide, 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:

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Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 6/(12)

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

### 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.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Keep general measures applied for normal operations with lubricants and flammable liquids.

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

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)

Synthetic diesel engine oil.

# SAFETY DATA SHEET

MOL-LUB Ltd.

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

Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 7/(12)

## 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: Breathing apparatus not required.

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: Where splashing is possible, wear safety glasses with side shields.

Skin protection: Protective clothing (oil resistant).

Other special: no data

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

## 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. -40°C
Boiling point:	not available

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:	not oxidize
Vapour pressure at 20°C:	negligible

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Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 8/(12)

Density at 15°C (EN ISO 12185):	0.848-0.862 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. 69.2 mm <sup>2</sup> /s
Kinematic viscosity at 100°C (EN ISO 3104):	typ. 11.7 mm <sup>2</sup> /s
pH:	not applicable

9.2 Other information  
no data available

## 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.

## 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)

Acute toxicity: irritation

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

- Respiratory or skin sensitisation: not sensitising (based on components)
- Chronic toxicity: not known
- Repeated dose toxicity: not known



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Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 9/(12)

## Other information, specific effects:

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

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.

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

- 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                      Not required.
- 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):                      -



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Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 11/(12)

## 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 and to Regulation (EC) 1272/2008.
- 15.2 Chemical safety assessment.  
not available

## 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
- Hungarian and EU lists of dangerous substances
- Relevant Hungarian regulation and EU directives

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

R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 33	Danger of cumulative effects.
R 36/38	Irritating to eyes and skin.
R 38	Irritating to skin.
R 41	Risk of serious damage to eyes.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 62	Possible risk of impaired fertility.
R 65	Harmful: may cause lung damage if swallowed.

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

Trade name: **MOL Dynamic Mistral 5W-30 synthetic diesel engine oil**

Version: 1    Latest revision:    Date of issue: 22. 06. 2012    Page: 12/(12)

H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure through prolonged or repeated exposure.
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.
Acute Tox. 3	Acute toxicity Category 3
Asp.Tox.1	Aspiration hazard Category 1
Acute Tox. 3	Acute toxicity Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit 2	Serious eye damage/eye irritation Category 2
Acute Tox. 3	Acute toxicity Category 3
STOT RE 2	Specific target organ toxicity – repeated exposure Category 2
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

## Revision Indicators:

Section	Subject of change	Date	Version