

SAFETY DATA SHEET



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

MOL-LUB Ltd.

Trade name: **MOL Dynamic Star PC 5W-30 synthetic motor oil**

Version: 5 Latest revision: 26. 10. 2015. Date of issue: 20. 06. 2007 Page: 1/(13)

1. Section Identification of the mixture/substance and of the company/undertaking

1.1 Product identifier:

MOL Dynamic Star PC 5W-30 synthetic motor oil

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

Relevant identified uses: synthetic motor 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

E-mail: kenoanyag@mol.hu

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

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:

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2. Section Hazards identification

2.1 Classification of the mixture or substance

Hazard Class and Category:	Hazard statement:
Skin Sens. 1	H317 May cause an allergic skin reaction.
Eye Irrit. 2	H319 Causes serious eye irritation.

2.2 Label elements

Product identification: Trade name: **MOL Dynamic Star PC 5W-30 synthetic motor oil**

Hazardous components: C14-16-18 Alkyl phenol

GHS Pictogram:



Signal word: **Warning**

Hazard statement:

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Supplemental hazard information: -

Precautionary statements – General: -

Precautionary statements – Prevention:

P280 Wear eye/face protection.
P273 Avoid release to the environment.

Precautionary statements – Response:

P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
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: -



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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.

3. Section Composition/information on ingredients

3.2 Mixtures

Chemical description: Mixture of refined mineral base oils and hydrotreated neutral oil 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 neutral oil-based, C20-C50 REACH Registr. Nr.: 01-2119474889-13	276-738-4	72623-87-1	Asp.Tox.1 (Note L)	H304	max. 30
Base oil – unspecified, hydrotreated heavy paraffinic, C20-C50* REACH Registr. Nr.: 01-2119484627-25	265-157-1	64742-54-7	- (Note L)	-	max. 20
Base oil – unspecified, hydrotreated heavy paraffinic, C20-C50* REACH Registr. Nr.: 01-2119484627-25	265-157-1	64742-54-7	Asp.Tox.1 (Note L)	H304	max. 20
Mineral oil raffinate*		confidential	- (Note L)	-	max. 10
Lubricating oils (petroleum), C24-C50* REACH Registr. Nr.: 01-2119489969-06	309-877-7	101316-72-7	- (Note L)	-	max. 5

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Name	EU number	CAS number	Hazard classes and cat.	Hazard statements	Conc. %(m/m)
C14-16-18 Alkyl phenol REACH Registr. Nr.: 01-2119498288-19	931-468-2	-	Skin Sens. 1 Aquatic Chronic 4	H317 H413	max. 1.3
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) REACH Registr. Nr.: 01-2119543726-33	298-577-9	93819-94-4	Skin Irrit. 2 Eye Dam. 1 Aquatic Chronic 2	H315 H318 H411	max. 1.3
Bis(nonylphenyl)amine REACH Registr. Nr.: 01-2119488911-28	253-249-4	36878-20-3	Aquatic Chronic 4	H413	max. 1.3

*: with exposure limit

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

4. Section 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: 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

Sensitization.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment need

Not required.

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5. Section 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 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 fire fighting water separately. It must not enter the sewage system.
Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Section 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 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.

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6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

7. Section 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 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 motor oil.

8. Section 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: Breathing apparatus not required.

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

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

Eye protection: Protective goggles (EN 166)
Skin protection: Protective clothing (oil resistant).
Other special: no data

Environmental exposure controls:
Do not discharge into drains/surface waters/groundwater.

9. Section 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): max. -42°C
Boiling point: not available

Others:

Flash point (COC) (EN ISO 2592): min. 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): 0.855 g/cm³
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. 62.67 mm²/s
Kinematic viscosity at 100°C (EN ISO 3104): typ. 10.6 mm²/s
pH: not applicable

9.2 Other information

no data available

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10. Section 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. Section Toxicological information

11.1 Information on toxicological effects

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)
Note: Prolonged and/or repeated contact may cause irritation on skin depending on individual sensitivity.
Eye: irritant (based on components), causes serious eye irritation

Respiratory or skin sensitisation: sensitising (based on components)

Other information, specific effects:

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

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 |



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12. Section 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 water:	Floats on water.
	Mobility in soil:	Absorbs in soil.
12.5	Results of PBT and vPvB assessment	Does not contain PBT and vPvB substances.
12.6	Other adverse effects	
	Heavy metal content:	None.
	PCT, PCB and other chlorinated hydrocarbons:	None.
	Environmental effects:	Spills may form a film on water surfaces causing impaired oxygen transfer.
	Water hazard class (German):	WGK 1 (Classification by VwVwS of 17 May, 1999)

13. Section 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.	
	Recommended waste treatment method: incineration	

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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.

14. Section 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.

15. Section 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

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16. Section 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

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

Skin Sens. 1	H317	calculation method
Eye Irrit. 2	H319	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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Asp.Tox.1	Aspiration hazard Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1.	Skin Sensitisation, Hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, Chronic Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4

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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 (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
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%) Halálos dózis 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



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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
3 9 1-16	Composition/information on ingredients Physical and chemical properties Revision modification according to 1272/2008/EC and 453/2010/EC	22.11.2012	2
3 9	Composition/information on ingredients Physical and chemical properties	11.12.2012	3
1 2 3 5 9 14 1-16	Details of the supplier of the safety data sheet, Responsible for SDS Other hazards Composition/information on ingredients Fire hazards Physical and chemical properties Transport information Other corrections	22.06.2015	4
2 3 4 9 11 1-16	Hazards identification Composition/information on ingredients First aid measures Physical and chemical properties Toxicological information Other corrections, revision modification according to 2015/830 /EU	26. 10. 2016	5