according to regulation 1907/2006/EC (REACH) and 1272/2008/EC

## Trade name: MOL Essence 10W-40 semi-synthetic motor oil

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

- 1.1 Product identifier: MOL Essence 10W-40 semi-synthetic motor oil
- 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses: semi-synthetic motor oil Uses advised against: application other than the above.
- 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. Tel: +36 80 201 296 E-mail: EBKHelpdesk@MOL.hu

1.4 Emergency telephone number Emergency telephone (on workdays: 07-15<sup>20</sup> h (CET)): +36 34 526 210 Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián st. 2-6.) Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).
+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad) National Health Toxicological Information Service:

#### SECTION 2 Hazards identification

| 2.1 | Classification of the substance or mixture |               |                     |           |        |      |      |         |
|-----|--|---------------|---------------------|-----------|--------|------|------|---------|
|     | Hazard Class and Category:                 | Hazard staten | nent:               |           |        |      |      |         |
|     | Aquatic Chronic 3                          | H412          | Harmful to effects. | aquatic 1 | life v | with | long | lasting |



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MOL-LUB Ltd.

MOL

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#### 2.2 Label elements Trade name: MOL Essence 10W-40 semi-synthetic motor oil Product identification: Hazardous components: GHS Pictogram: not required Signal word: not required Hazard statement: H412 Harmful to aquatic life with long lasting effects. Supplemental hazard information: **EUH208** Contains Calcium long chain alkaryl sulphonate. May produce an allergic reaction. Precautionary statements - General: -Precautionary statements – Prevention: P273 Avoid release to the environment. Precautionary statements - Response: -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, at a concentration of 0.1% or more. The product contains an endocrine disrupting ingredient: Phenol, dodecyl-, branched (CAS: 121158-58-5) Endocrine disrupting properties (Article 57(f) - human health); Endocrine disrupting properties (Article 57(f) - environment).

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#### SECTION 3 Composition/information on ingredients

#### 3.2 Mixtures

Chemical description:

Mixture of refined mineral base oils and synthetic oil containing additives.

Component(s) / Hazardous component(s):

| Name   | EC        | CAS        | Hazard classes and      | Hazard     | Conc.   |
|--|-----------|------------|-------------------------|------------|---------|
| Iname  | number    | number     | cat.                    | statements | %(m/m)  |
| Distillates (petroleum),<br>solvent-dewaxed heavy<br>paraffinic*<br>REACH Registr. Nr.:<br>01-2119471299-27            | 265-169-7 | 64742-65-0 | (Note L)                | -          | max.70  |
| Distillates (petroleum),<br>hydrotreated heavy paraffinic<br>REACH Registr. Nr.:<br>01-2119484627-25                   | 265-157-1 | 64742-54-7 | Asp. Tox. 1<br>(Note L) | H304       | max.20  |
| Distillates (petroleum),<br>hydrotreated heavy<br>paraffinic*<br>REACH Registr. Nr.:<br>01-2119484627-25               | 265-157-1 | 64742-54-7 | -<br>(Note L)           | -          | max.20  |
| Lubricating oils (petroleum),<br>C20-50, hydrotreated neutral<br>oil-based<br>REACH Registr. Nr.:<br>01-2119474889-13  | 276-738-4 | 72623-87-1 | Asp. Tox. 1<br>(Note L) | H304       | max.20  |
| Lubricating oils (petroleum),<br>C20-50, hydrotreated neutral<br>oil-based*<br>REACH Registr. Nr.:<br>01-2119474878-16 | 276-737-9 | 72623-86-0 | -<br>(Note L)           | -          | max.20  |
| Distillates (petroleum),<br>solvent-dewaxed light<br>paraffinic<br>REACH Registr. Nr.:<br>01-2119480132-48             | 265-159-2 | 64742-56-9 | Asp. Tox. 1<br>(Note L) | H304       | max.15  |
| Highly refined mineral oil<br>(C15 - C50)*<br>REACH Registr. Nr.:<br>no data   | -         | mixture    | -<br>(Note L)           | -          | max.6.0 |



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| Name  | EC<br>number | CAS<br>number | Hazard classes and cat.   | Hazard statements                                   | Conc.<br>%(m/m) |
|---|--------------|---------------|---|---|-----------------|
| Phosphorodithioic acid,<br>mixed O,O-bis(1,3-<br>dimethylbutyl and iso-Pr)<br>esters, zinc salts**<br>REACH Registr. Nr.:<br>01-2119493626-26 | 283-392-8    | 84605-29-8    | Skin Irrit. 2<br>Eye Dam. 1<br>Aquatic Chronic 2                                | H315<br>H318<br>H411                                | max.1.3         |
| Phenol, dodecyl-,<br>sulfurized, carbonates,<br>calcium salts, overbased<br>REACH Registr. Nr.:<br>01-2119524004-56                           | 701-251-5    | -             | Aquatic Chronic 4   | H413  | max.1.3         |
| Zinc dialkyl<br>dithiophosphate**<br>REACH Registr. Nr.:<br>01-2119657973-23  | 272-238-5    | 68784-31-6    | Eye Dam. 1<br>Aquatic Chronic 2   | H318<br>H411  | max 1.1         |
| Calcium long chain alkaryl<br>sulfonate***<br>REACH Registr. Nr.:<br>no data  | polymer      | 722503-68-6   | Skin Sens. 1B<br>Aquatic Chronic 4  | H317<br>H413  | max.1.1         |
| Bis(nonylphenyl)amine<br>REACH Registr. Nr.:<br>01-2119488911-28  | 253-249-4    | 36878-20-3    | Aquatic Chronic 4   | H413  | max.1.1         |
| Phenol, dodecyl-, branched<br>REACH Registr. Nr.:<br>01-2119513207-49   | 310-154-3    | 121158-58-5   | Skin Corr. 1C<br>Eye Dam. 1<br>Repr. 1B<br>Aquatic Acute 1<br>Aquatic Chronic 1 | H314<br>H318<br>H360F<br>H400 (M=10)<br>H410 (M=10) | max.0.17        |
| Phenol, (tetrapropenyl)<br>derivatives<br>REACH Registr. Nr.:<br>no data  | 616-100-8    | 74499-35-7    | Skin Corr. 1C<br>Eye Dam. 1<br>Repr. 1B<br>Aquatic Acute 1<br>Aquatic Chronic 1 | H314<br>H318<br>H360F<br>H400 (M=10)<br>H410 (M=10) | max.0.04        |

\*: with exposure limit

\*\* Specific concentration limit: Skin Irrit. 2; : 6.25 %  $\leq$  C  $\leq$  100 %; Eye Irrit. 2; : 10 % < C  $\leq$  12.5 %; Eye Dam. 1; : 12.5 % < C  $\leq$  100 %

\*\*\*Specific concentration limit: Skin Sens. 1. H317: C >1,3%



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Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

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. If rapid recovery does not occur, obtain medical attention.

Skin contact: Remove contaminated clothing. 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 data available.

 4.2 Most important symptoms and effects, both acute and delayed May cause an allergic reaction. Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity.

4.3 Indication of any immediate medical attention and special treatment needed Not required.

#### SECTION 5 Fire-fighting measures

- Fire hazards: Combustible.
- 5.1 Extinguishing media
   Suitable extinguishing media: Foam, carbon dioxide, dry chemical powder, water fog (trained personnel only).

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Unsuitable extinguishing media: Full water jet.

- 5.2 Special hazards arising from the substance or mixture 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 firefighting 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.
- 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. 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 liquids. Keep away from radiant heat and open flame.

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Avoid contact with skin and eyes. Avoid prolonged breathing of oil vapours or mists. Wash hands before breaks and at end of work. 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

- 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

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

Engineering control measures: Not required.

Personal protection:

| (a) | Eye/face protection    | Protective goggles, if splashes may occur (EN 166).   |
|-----|------------------------|---|
| (b) | Skin protection        |   |
|     | (i) 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.   |
|     | (ii) Other             | Protective clothing (oil resistant).  |
| (c) | Respiratory protection | Under normal conditions not required. In case of exceeded<br>exposure-limits respiratory protection with particle-filter is<br>recommended. |
|     |                        |   |



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MOL-LUB Ltd.

combustible

not explosive

typ. 230°C

not available

not available

not applicable

typ. 78.6 mm<sup>2</sup>/s

typ. 11.7 mm<sup>2</sup>/s

not available

not available

not available

not available

0.860-0.880 g/cm<sup>3</sup>

negligible

practically insoluble in water

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| (d) | Thermal hazards | 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 Physical state: liquid a) Colour: b) brown, clear Odour: characteristic c) d) Melting point/freezing point (Pour point) (ISO 3016): typ. -36°C Boiling point or initial boiling point and boiling range e) not available

- (DIN 51356): f) Flammability:
- g) Lower and upper explosion limit:
- h) Flash point (COC) (EN ISO 2592):
- i) Auto-ignition temperature:
- j) Decomposition temperature:
- k) pH:
- 1) Kinematic viscosity (EN ISO 3104)

at 40°C:

# at 100°C:

m) SolubilitySolubility in water:Solubility in other solvents:

- n) Partition coefficient n-octanol/water (log value):
- o) Vapour pressure at 20°C:
- p) Density and/or relative density at 15°C (EN ISO 12185):
- q) Relative vapour density:
- r) Particle characteristics:
- 9.2 Other information no data available

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#### 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<br>under normal conditions. Hazardous combustion |
|      |                                     | products: See Section 5.  |

#### SECTION 11 Toxicological information

| 11.1 |                         | l classes as defined in Ro<br>on available data, the cl | 0         | . ,               |                       |
|------|-------------------------|---|-----------|-------------------|-----------------------|
|      | Oral:                   | $LD_{50}$ (rat)   |           | mg/kg             | (based on components) |
|      | Dermal:                 | LD <sub>50</sub> (rabbit)                               |           | mg/kg             | (based on components) |
|      | Inhalation:             | no data   |           |                   |                       |
|      | Components:             |   |           |                   |                       |
|      | _                       | ), hydrotreated heavy po                                |           |                   |                       |
|      | Oral:                   | $LD_{50}$ (rat)   | > 2000    | mg/kg             | (OECD 401)            |
|      | Dermal:                 | LD <sub>50</sub> (rabbit)                               | > 2000    | mg/kg             | (OECD 402)            |
|      | Inhalation:             | $LC_{50}$ (rat)   | > 5000    | mg/m <sup>3</sup> | (OECD 403)            |
|      | Lubricating oils (petro | oleum), C20-50, hydrotr                                 | eated neu | ıtral oil-based   | (CAS: 72623-87-1)     |
|      | Oral:                   | $LD_{50}$ (rat)   | > 5000    | mg/kg             |                       |
|      | Dermal:                 | LD <sub>50</sub> (rabbit)                               | > 2000    | mg/kg             |                       |
|      | Inhalation:             | LC <sub>50</sub> (rat)                                  | > 5,53    | mg/L              |                       |
|      | Lubricating oils (petro | oleum), C20-50, hydroti                                 | eated net | utral oil-based   | (CAS: 72623-86-0)     |
|      | Oral:                   | $LD_{50}$ (rat)   | > 5000    | mg/kg             |                       |
|      | Dermal:                 | LD <sub>50</sub> (rabbit)                               | > 2000    | mg/kg             |                       |
|      | Inhalation:             | $LC_{50}$ (rat)   | > 5000    | mg/m <sup>3</sup> | (dust, mist)          |
|      | Distillates (petroleum  | ), solvent-dewaxed heav                                 | y paraffi | nic (CAS: 6474    | (2-65-0)              |
|      | Oral:                   | $LD_{50}$ (rat)   | > 5000    | mg/kg             |                       |
|      | Dermal:                 | LD <sub>50</sub> (rabbit)                               | > 5000    | mg/kg             |                       |
|      | Inhalation:             | $LC_{50}$ (rat)   | > 5,00    | mg/L (4 h)        |                       |



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Distillates (petroleum), solvent-dewaxed light paraffinic (CAS: 64742-56-9)  $LD_{50}$  (rat) Oral: > 5000 mg/kg(literature data) Dermal: LD<sub>50</sub> (rabbit) > 2000 mg/kg(literature data) Inhalation: LC<sub>50</sub> (rat) > 5.53 mg/L/4 h(literature data) Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased (EC: 701-251-5) Oral:  $LD_{50}$  (rat) > 5000 mg/kgLD<sub>50</sub> (rabbit) >4000 mg/kgDermal: Inhalation: LC<sub>50</sub> (rat) >1,67 mg/L/1 h Phenol, (tetrapropenyl) derivatives (CAS: 74499-35-7): Oral:  $LD_{50}$  (rat) 2200 mg/kg (OECD 401) 15 000 mg/kg Dermal: LD<sub>50</sub> (rabbit) (OECD 402)

| Skin corrosion/irritation:<br>Serious eye damage/irritation: | Based on available data, the classification criteria are not met.<br>Based on available data, the classification criteria are not met. |
|--|--|
| Respiratory or skin sensitisation:                           | Based on available data, the classification criteria are not met.  |
| Germ cell mutagenicity:                                      | Based on available data, the classification criteria are not met.  |
| Carcinogenicity:   | Based on available data, the classification criteria are not met.  |
| Reproductive toxicity:                                       | Based on available data, the classification criteria are not met.  |
| STOT-single exposure:  | Based on available data, the classification criteria are not met.  |
| STOT-repeated exposure:                                      | Based on available data, the classification criteria are not met.  |
| Aspiration hazard:   | Based on available data, the classification criteria are not met.  |

#### 11.2 Information on other hazards

The product contains an endocrine disrupting ingredient: Phenol, dodecyl-, branched (CAS: 121158-58-5) Endocrine disrupting properties (Article 57(f) - human health).

#### SECTION 12 Ecological information

| 12.1 | Toxicity  | Harmful to aquatic life with long lasting effects. |     |                  |                 |
|------|---|--|-----|------------------|-----------------|
|      | Components:<br>Distillates (petroleum), hydrotreated he | avy paraffinic (CAS: 64                            | 474 | 2-54-7)          |                 |
|      | Fish:   | >1(  | 000 | mg/L             | 96 h (OECD 203) |
|      | Daphnia:  | > 1  | 100 | mg/L             | 48 h (OECD 202) |
|      | Algae:  | > 1  | 100 | mg/L             | 72 h (OECD 201) |
|      | Lubricating oils (petroleum), C20-50, hy<br>Fish:       |  |     | ed (CAS:<br>mg/L | 72623-87-1)     |

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| Algae:                               | NOEC                   | $\geq 100$ |         | S: 72623-86-0)<br>72 h |
|--------------------------------------|------------------------|------------|---------|------------------------|
| Distillates (petroleum), solvent-dew | axed heavy paraffini   | c (CAS: 64 | 4742-65 | 5-0)                   |
| Fish:                                | LL/EL/IL <sub>50</sub> | >100       | mg/L    |                        |
| Crustacea:                           | LL/EL/IL <sub>50</sub> | >100       | mg/L    |                        |
| Crustacea:                           | LL/EL/IL <sub>50</sub> | >100       | mg/L    |                        |
| Microorganisms:                      | LC/EC/IC <sub>50</sub> | >100       | mg/L    |                        |
| Fish:                                | NOEC/NOEL              | >100       | mg/L    |                        |
| Crustacea:                           | NOEC/NOEL              | >1 - ≤10   | mg/L    |                        |
| Distillates (petroleum), solvent-dew | axed light paraffinic  | (CAS: 64)  | 742-56- | 9)                     |
| Fishes:                              | LC <sub>50</sub>       | >100       | mg/L    |                        |
| Other aquatic organisms:             | $EC_{50}$              | >100       | mg/L    |                        |
| Algae:                               | $ErC_{50}$             | >100       | mg/L    |                        |
| Crustacea:                           | NOEC                   | >1         | mg/L    |                        |
| Zinc alkyl dithiophosphate (CAS: 68  | 8784-31-6)             |            |         |                        |
| Fish (Oncorhynchus mykiss):          | $LC_{50}$              | 4,5        | mg/L    | 96 h                   |
| Fish (Mutton-headed carp):           | $LC_{50}$              | 46         | mg/L    | 96 h                   |
| Fish (Oncorhynchus mykiss):          | NOEC                   | 1,8        | mg/L    | 96 h                   |
| Daphnia:                             | $EC_{50}$              | 23         | mg/L    | 48 h                   |
| Daphnia:                             | $EC_{50}$              | >0.8       | mg/L    | 21 days                |
| Daphnia:                             | NOEC                   | 10         | mg/L    | 48 h                   |
| Daphnia:                             | NOEC                   | 0,4        | mg/L    | 21 days                |
| Green algae:                         | $EC_{50}$              |            | mg/L    | 72 h                   |
| Green algae:                         | NOEC                   | 10         | mg/L    | 72 h                   |
| Phenol, dodecyl-, branched (CAS: 1   | 21158-58-5)            |            |         |                        |
| Fish (Fat-headed carp):              | $LC_{50}$              |            | mg/L    | 96 h                   |
| Daphnia:                             | EC <sub>50</sub>       | 0.037      | mg/L    | 48 h                   |
| Shrimp (Mysidopsis Bahia):           | $EC_{50}$              | >0.58      | mg/L    | 96 h                   |
| Daphnia:                             | $EC_{50}$              | 0.0079     | mg/L    | 21 days                |
| Daphnia:                             | NOEC                   | 0.0037     | mg/L    | 21 days                |
| Algae:                               | $EC_{50}$              | 0.36       | mg/L    | 72 h                   |
| Microorganisms                       |                        |            |         |                        |
| (activated sludge):                  | $EC_{50}$              | >1000      | mg/L    | 0.1 day                |

| according to reg                    | gulation 1907/2006/EC (REACH) and                                    | 1272/2008/EC      | Μ              | [OL-]    | LUB Ltd.            |
|-------------------------------------|--|-------------------|----------------|----------|---------------------|
| Frade name                          | e: MOL Essence 10W-4   | 0 semi-synth      | etic motor     | oil      |                     |
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| Phosph<br>84605-2                   | orodithioic acid, mixed O,O-bis<br>29-8)                             | (1,3-dimethylb    | utyl and iso-l | Pr) este | ers, zinc salts (CA |
| Fishe                               | es (Oncorhynchus mykiss):  | $LC_{50}$         | 4.5            | mg/L     | 96 h                |
| Fishe                               | es (Mutton-headed carp):   | $LC_{50}$         |                | mg/L     | 96 h                |
| Fishe                               | es (Oncorhynchus mykiss):  | NOEC              | 1.8            | mg/L     | 96 h                |
| Daph                                | nnia:  | $EC_{50}$         | 23             | mg/L     | 48 h                |
| Daph                                | nnia:  | $EC_{50}$         | > 0.8          | mg/L     | 21 days             |
| Daph                                | nnia:  | NOEC              | 10             | mg/L     | 48 h                |
| Daph                                | nnia:  | NOEC              | 0.4            | mg/L     | 21 days             |
| Gree                                | n algae:   | $EC_{50}$         | 21             | mg/L     | 72 h                |
| Gree                                | n algae:   | NOEC              | 10             | mg/L     | 72 h                |
| Phenol,                             | (tetrapropenyl) derivatives (CA                                      | S: 74499-35-7     | 7)             |          |                     |
|                                     | es (Fat-headed carp):  | $LC_{50}$         |                | mg/L     | 96 h                |
| Daph                                | · · · · · · · · · · · · · · · · · · ·                                | $EC_{50}$         | 0.037          |          | 48 h                |
| -                                   | np (Mysidopsis Bahia):   | $EC_{50}$         | > 0.58         |          | 96 h                |
| Daph                                |  | $EC_{50}$         | 0.0079         | mg/L     | 21 days             |
| Daph                                | nnia:  | NOEC              | 0.0037         | mg/L     | 21 days             |
| Algae                               | e:   | $EC_{50}$         | 0.36           |          | 72 h                |
| Micro                               | oorganisms (activated sludge):                                       |                   | > 1000         | mg/L     | 0,1 day             |
| Phenol,                             | dodecyl-, sulfurized, carbonate                                      | es, calcium salts | s, overbased ( | (EC: 70  | )1-251-5)           |
|                                     | (Pimephales promelas):   | LL <sub>50</sub>  | > 1000         |          | 96 h                |
|                                     | oorganisms:  | $EL_{50}$         | > 10000        |          | 3 h                 |
|                                     | inia magna:  | $EL_{50}$         | > 1000         | -        | 48 h                |
| Algae                               | 0  |                   |                | C        |                     |
|                                     | dokirchneriella subcapitata):  | $EL_{50}$         | > 500          | mg/L     | 96 h                |
| 2.2 Persiste<br>Biodegr<br>Zinc alk | nce and degradability<br>adability:<br>yl dithiophosphate (CAS: 6878 | Hydroca<br>4-     | rbons are inh  | erently  | degradable.         |
| 316)                                |  | 1 504 (29         | Advis OECI     | TC 20    | 11 <b>D</b> )       |

1.5% (28 days, OECD TG 301B)

25 % (28 days, OECD TG 301 B)

1.5% (28 days, OECD TG 301B)

25 % (28 days, OECD TG 301 B)

Γ

31-6)

58-5)

(CAS: 84605-29-8)

74499-35-7)

Phenol, dodecyl-, branched (CAS: 121158-

Phosphorodithioic acid, mixed O,O-bis(1,3dimethylbutyl and iso-Pr) esters, zinc salts

Phenol, (tetrapropenyl) derivatives (CAS:

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC

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| 12.3 | Bioaccumulative potential  | No data available.   |
|------|--|--|
| 12.4 | Mobility in soil<br>Mobility in water:   | Absorbs in soil.<br>Floats on water.   |
| 12.5 | Results of PBT and vPvB assessment   | Does not contain PBT and vPvB substances.  |
| 12.6 | Endocrine disrupting properties  | The product contains an endocrine disrupting ingredient: Phenol, dodecyl-, branched (CAS: 121158-58-5). Endocrine disrupting properties (Article 57(f) - environment). |
| 12.7 | Other adverse effects<br>Heavy metal content:<br>PCT, PCB and other chlorinated<br>hydrocarbons:<br>Environmental effects:<br>Water hazard class (German): | None.<br>-<br>WGK 2 (Classification by AwSV)   |

#### 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.

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.

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according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



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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.

#### SECTION 14 Transport information

|      | Land transport:<br>Road/ Railway | ADR/RID:  | Not classified.           |
|------|----------------------------------|-----------|---------------------------|
|      | UN number or ID number:          |           | Not classified.           |
|      | UN proper shipping name:         |           | Not classified.           |
| 14.3 | Transport hazard class(es):      |           | Not classified.           |
| 14.4 | Packing group:                   |           | Not classified.           |
| 14.5 | Environmental hazards:           |           | Not classified.           |
| 14.6 | special precautions for user:    |           | Not classified.           |
|      | 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 substance or mixture This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008. Seveso category: not classified.
- 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.



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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.

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

Aquatic Chronic 3 H412 calculated

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.                                  |
| 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.  |
|                   |  |
| Asp. Tox. 1       | Aspiration hazard Category 1                             |
| Skin Corr. 1C     | Skin corrosion/irritation Category 1C                    |
| Skin Irrit. 2     | Skin corrosion/irritation Category 2                     |
| Skin Sens. 1B     | Respiratory/skin sensitization Category 1                |
| 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 |
| -                 |  |



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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 Labelling  |
| 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       | Carcinogenic, Mutagenic or toxic to Reproduction  |
| DMEL      | Chemical Oxygen Demand  |
| DNEL      | Derived No Effect Level   |
| ECHA      | European Chemicals Agency   |
| Ecx       | Effective Concentration x%  |
| ErC50     | EC50 in terms of reduction of growth rate   |
| Edx       | Effective Dose x%   |
| EC        | European Community  |
| EC number | European Community number   |
| ELINCS    | European List of Notified Chemical Substances   |
| ES        | ExposureScenario  |
| IARC      | International Agency for Research on Cancer   |
| IATA      | International Air Transport Association   |
| IMDG      | International Maritime Dangerous Goods  |
| LCx       | Lethal Concentration x%   |
| LDx       | 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   |
| ppm       | parts/million   |
| REACH     | Registration, Evaluation, Authorisation and Restriction of Chemicals                            |
| RID       | Regulations concerning the International carriage of Dangerous Goods by Rail                    |

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| 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 |
|---------|---|------------|---------|
| 1       | Details of the supplier of the safety data sheet,       | 29.05.2015 | 2       |
|         | Responsible for SDS                                     |            |         |
| 2       | Other hazards   |            |         |
| 5       | Fire hazards  |            |         |
| 9       | Physical and chemical properties                        |            |         |
| 14      | Transport information                                   |            |         |
| 1-16    | Other corrections                                       |            |         |
| 2       | Hazards identification                                  | 20.09.2018 | 3       |
| 3       | Composition/information on ingredients                  |            |         |
| 11      | Toxicological information                               |            |         |
| 12      | Ecological information                                  |            |         |
| 1-16    | 1-16 Other corrections, revision modification according |            |         |
|         | to 2015/830 /EU   |            |         |
| 3       | Composition/information on ingredients                  | 08.05.2019 | 4       |
| 11      | Toxicological information                               |            |         |
| 12      | Ecological information                                  |            |         |
| 3       | Composition/information on ingredients                  | 14.08.2019 | 5       |
| 11      | Toxicological information                               |            |         |
| 12      | Ecological information                                  |            |         |
| 1-16    | Revision modification according to 2020/878/EU          | 17.11.2022 | 6       |
|         | Full revision due to composition change                 |            |         |