

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

### 1.1 Product identifier

**Product name** : QUARTZ MOPAR FPW/03 5W-30  
**Product code** : C3O0O0G40  
**Product description** : Not available.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

#### Identified uses

Motor oil

#### Uses advised against

Not applicable.

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

TotalEnergies Lubrifiants  
562 Avenue du Parc de L'île  
92029 Nanterre Cedex FRANCE  
Tél: +33 (0)1 41 35 40 00  
Fax: +33 (0)1 41 35 84 71  
rm.msds-lubs@totalenergies.com

TotalEnergies Marketing UK Limited  
10 Upper Bank Street (19th floor)  
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London E14 5BF  
UNITED KINGDOM  
Tel: +44 (0)20 7339 8000  
Fax: +44 (0)20 7339 8033  
rm.gb-msds@totalenergies.com

H.S.E

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : National Poisons Information Service (NPIS): 111

#### Supplier

**Telephone number** : Emergency telephone: +44 1235 239670

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown ecotoxicity** : ☒ Contains 27% of components with unknown hazards to the aquatic environment

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.

**Hazard statements** : No hazard statement.

#### Precautionary statements

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Supplemental label elements** : ☒ Contains C14-16-18 Alkyl phenol and Molybdenum polysulphide long chain alkyl dithiocarbamate complex. May produce an allergic reaction.  
Safety data sheet available on request.

**Labelling element REACH Annex XVII** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration  $\geq 0,1$  %.

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

**Other hazards which do not result in classification** : Hazard of slipping on spilt product.

## SECTION 3: Composition/information on ingredients

| Product/ingredient name                                                                                  | Identifiers                                                                             | %                   | Classification    | Type  |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------|-------------------|-------|
| <input checked="" type="checkbox"/> Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | REACH #:<br>01-2119474889-13<br>EC: 276-738-4<br>CAS: 72623-87-1<br>Index: 649-483-00-5 | $\geq 10 - \leq 25$ | Asp. Tox. 1, H304 | [Haz] |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                                     | REACH #:<br>01-2119474878-16<br>EC: 276-737-9<br>CAS: 72623-86-0                        | $\leq 5$            | Asp. Tox. 1, H304 | [Haz] |

## SECTION 3: Composition/information on ingredients

|                                                                                         |                                                                                                                |      |                                                                       |       |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------|-------|
| Distillates (petroleum), hydrotreated heavy paraffinic                                  | Index: 649-482-00-X<br>REACH #:<br>01-2119484627-25<br>EC: 265-157-1<br>CAS: 64742-54-7<br>Index: 649-467-00-8 | ≤5   | Asp. Tox. 1, H304                                                     | [Haz] |
| Distillates (petroleum), hydrotreated heavy paraffinic                                  | REACH #:<br>01-2119484627-25<br>EC: 265-157-1<br>CAS: 64742-54-7                                               | ≤5   | Asp. Tox. 1, H304                                                     | [Haz] |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                               | REACH #:<br>01-2119471299-27<br>EC: 265-169-7<br>CAS: 64742-65-0<br>Index: 649-474-00-6                        | ≤3   | Asp. Tox. 1, H304                                                     | [Haz] |
| Distillates (petroleum), solvent-dewaxed light paraffinic                               | REACH #:<br>01-2119480132-48<br>EC: 265-159-2<br>CAS: 64742-56-9<br>Index: 649-469-00-9                        | ≤3   | Asp. Tox. 1, H304                                                     | [Haz] |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                      | REACH #:<br>01-2119487080-42<br>EC: 265-174-4<br>CAS: 64742-70-7                                               | ≤3   | Asp. Tox. 1, H304<br>Aquatic Chronic 4, H413                          | [Haz] |
| Phosphorodithioic acid, mixed O, O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts | REACH #:<br>01-2119493626-26<br>EC: 283-392-8<br>CAS: 84605-29-8                                               | <2.5 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Aquatic Chronic 2, H411    | [Haz] |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate | REACH #:<br>01-0000015551-76<br>EC: 406-040-9<br>CAS: 125643-61-0                                              | ≤3   | Aquatic Chronic 4, H413                                               | [Haz] |
| C14-16-18 Alkyl phenol                                                                  | REACH #:<br>01-2119498288-19<br>EC: 931-468-2                                                                  | ≤0.3 | Skin Sens. 1B, H317<br>STOT RE 2, H373                                | [Haz] |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                        | REACH #:<br>01-0000019337-66<br>EC: 457-320-2                                                                  | ≤0.3 | Skin Irrit. 2, H315<br>Skin Sens. 1B, H317<br>Aquatic Chronic 3, H412 | [Haz] |

Component : % (w/w)

Type

[Haz] Classified with a health or environmental hazard

**Additional information** : Mineral oil of petroleum origin Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

**See Section 16 for the full text of the H statements declared above.**

## SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : irritation  
redness  
dryness  
cracking
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.

## SECTION 5: Firefighting measures

**Hazardous combustion products** : carbon monoxide  
carbon dioxide  
nitrogen oxides  
phosphorus oxides  
sulfur oxides  
Hydrogen sulfide  
Mercaptans  
Zinc oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). See Section 10 for incompatible materials before handling or use.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

#### Biological Limit Values (BLV)

No exposure indices known.

- Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Advisory OEL** : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m<sup>3</sup>, NIOSH (REL) TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>, ACGIH (TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

#### DNELs/DMELs

## SECTION 8: Exposure controls/personal protection

| Product/substance                                                    | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | <b>DNEL - General population - Long term - Oral</b><br>0.74 mg/kg bw/day<br><u>Effects:</u> Local<br><br><b>DNEL - General population - Long term - Oral</b><br>0.74 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Dermal</b><br>0.97 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Inhalation</b><br>1.19 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>2.73 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>5.58 mg/m <sup>3</sup><br><u>Effects:</u> Local                                                                                                                   |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based | <b>DNEL - Workers - Long term - Inhalation</b><br>5.4 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - General population - Long term - Inhalation</b><br>1.2 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - General population - Long term - Oral</b><br>0.74 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Dermal</b><br>0.97 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Inhalation</b><br>1.19 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>2.73 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>5.58 mg/m <sup>3</sup><br><u>Effects:</u> Local |
| Distillates (petroleum), hydrotreated heavy paraffinic               | <b>DNEL - General population - Long term - Oral</b><br>0.74 mg/kg bw/day<br><u>Effects:</u> Systemic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## SECTION 8: Exposure controls/personal protection

### DNEL - Workers - Long term - Dermal

0.97 mg/kg bw/day

Effects: Systemic

### DNEL - General population - Long term - Inhalation

1.19 mg/m<sup>3</sup>

Effects: Local

### DNEL - Workers - Long term - Inhalation

2.73 mg/m<sup>3</sup>

Effects: Systemic

### DNEL - Workers - Long term - Inhalation

5.58 mg/m<sup>3</sup>

Effects: Local

OTHER LUBRICANT BASE OILS IP 346 <  
3% w/w; Viscosity ≤ 20.5 mm<sup>2</sup>/s at 40°C

### DNEL - General population - Long term - Oral

0.74 mg/kg bw/day

Effects: Systemic

### DNEL - Workers - Long term - Dermal

0.97 mg/kg bw/day

Effects: Systemic

### DNEL - General population - Long term - Inhalation

1.19 mg/m<sup>3</sup>

Effects: Local

### DNEL - Workers - Long term - Inhalation

2.73 mg/m<sup>3</sup>

Effects: Systemic

### DNEL - Workers - Long term - Inhalation

5.58 mg/m<sup>3</sup>

Effects: Local

Distillates (petroleum), solvent-dewaxed  
heavy paraffinic

### DNEL - General population - Long term - Oral

0.74 mg/kg bw/day

Effects: Systemic

### DNEL - Workers - Long term - Dermal

0.97 mg/kg bw/day

Effects: Systemic

### DNEL - General population - Long term - Inhalation

1.19 mg/m<sup>3</sup>

Effects: Local

### DNEL - Workers - Long term - Inhalation

2.73 mg/m<sup>3</sup>

Effects: Systemic

### DNEL - Workers - Long term - Inhalation

5.58 mg/m<sup>3</sup>

Effects: Local

Distillates (petroleum), solvent-dewaxed light

### DNEL - General population - Long term - Oral

## SECTION 8: Exposure controls/personal protection

|                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| paraffinic                                                                              | 0.74 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Dermal</b><br>0.97 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Inhalation</b><br>1.19 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>2.73 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>5.58 mg/m <sup>3</sup><br><u>Effects:</u> Local                                                        |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                      | <b>DNEL - General population - Long term - Oral</b><br>0.74 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Dermal</b><br>0.97 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Inhalation</b><br>1.19 mg/m <sup>3</sup><br><u>Effects:</u> Local<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>2.73 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>5.58 mg/m <sup>3</sup><br><u>Effects:</u> Local |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts | <b>DNEL - General population - Long term - Oral</b><br>0.24 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Inhalation</b><br>2.11 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - General population - Long term - Dermal</b><br>6.1 mg/kg bw/day<br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Inhalation</b><br>8.31 mg/m <sup>3</sup><br><u>Effects:</u> Systemic<br><br><b>DNEL - Workers - Long term - Dermal</b><br>12.1 mg/kg bw/day                      |

## SECTION 8: Exposure controls/personal protection

reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

0.006 mg/cm<sup>2</sup>

Effects: Local

**DNEL - General population - Long term - Oral**

0.16 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

0.22 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Dermal**

0.33 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Long term - Inhalation**

0.74 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Short term - Dermal**

1 mg/cm<sup>2</sup>

Effects: Local

**DNEL - Workers - Long term - Inhalation**

2.33 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - General population - Short term - Dermal**

8.33 mg/cm<sup>2</sup>

Effects: Local

**DNEL - Workers - Short term - Dermal**

20 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Oral**

50 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Dermal**

50 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Inhalation**

875 mg/m<sup>3</sup>

Effects: Systemic

**DNEL - Workers - Short term - Inhalation**

1750 mg/m<sup>3</sup>

Effects: Systemic

C14-16-18 Alkyl phenol

**DNEL - Workers - Long term - Inhalation**

1.17 mg/m<sup>3</sup>

Effects: Systemic

## SECTION 8: Exposure controls/personal protection

**DNEL - Workers - Long term - Dermal**  
0.3 mg/kg bw/day  
Effects: Systemic

### PNECs

| Product/substance                                                                         | Result                                           |
|-------------------------------------------------------------------------------------------|--------------------------------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic                                    | <b>Secondary Poisoning</b><br>9.33 mg/kg         |
| OTHER LUBRICANT BASE OILS IP 346 < 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C                 | <b>Secondary Poisoning</b><br>9.33 mg/kg         |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                                 | <b>Secondary Poisoning</b><br>9.33 mg/kg         |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts   | <b>Fresh water</b><br>0.004 mg/l                 |
|                                                                                           | <b>Marine water</b><br>0.0046 mg/l               |
|                                                                                           | <b>Soil</b><br>0.0548 mg/kg dwt                  |
|                                                                                           | <b>Sewage Treatment Plant</b><br>100 mg/l        |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate | <b>Fresh water</b><br>0.0043 mg/l                |
|                                                                                           | <b>Marine water</b><br>0.00043 mg/l              |
|                                                                                           | <b>Fresh water sediment</b><br>233 mg/kg dwt     |
|                                                                                           | <b>Marine water sediment</b><br>23.3 mg/kg dwt   |
|                                                                                           | <b>Soil</b><br>189 mg/kg                         |
| C14-16-18 Alkyl phenol                                                                    | <b>Fresh water</b><br>0.1 mg/l                   |
|                                                                                           | <b>Marine water</b><br>0.01 mg/l                 |
|                                                                                           | <b>Fresh water sediment</b><br>4266.16 mg/kg dwt |
|                                                                                           | <b>Marine water sediment</b><br>426.62 mg/kg dwt |

## SECTION 8: Exposure controls/personal protection

**Soil**  
852.58 mg/kg dwt

**Sewage Treatment Plant**  
100 mg/l

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : In case of contact through splashing: safety glasses with side-shields, EN 166.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Hydrocarbon-proof gloves. Fluorinated rubber. nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency

**Body protection** : Wear work clothing with long sleeves.  
Protective shoes or boots.

**Respiratory protection** : None under normal use conditions. If these are not sufficient to maintain exposure below the OEL, suitable respiratory protection must be worn (Type A/P1).

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid. [Clear]

**Colour** :  Yellow.

**Odour** : Characteristic.

**Melting point/freezing point** :  
Technically not possible to measure

**Initial boiling point and boiling range** : >316°C [ISO 3405]

## SECTION 9: Physical and chemical properties

|                                                     |                                                                                                                                                                                                                           |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability (solid, gas)</b>                    | : Non-flammable.                                                                                                                                                                                                          |
| <b>Upper/lower flammability or explosive limits</b> | : Lower: 0.9%<br>Upper: 7%                                                                                                                                                                                                |
| <b>Flash point</b>                                  | :  Open cup: 232°C [Cleveland Open Cup (COC)]                                                                                            |
| <b>Auto-ignition temperature</b>                    | :  232°C (>449.6°F) [ASTM E 659]                                                                                                         |
| <b>Decomposition temperature</b>                    | : Not applicable.                                                                                                                                                                                                         |
| <b>pH</b>                                           | : Product is non-soluble (in water).<br>Not applicable.                                                                                                                                                                   |
| <b>Viscosity</b>                                    | :  Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C): 72.2 mm²/s [ISO 3104] |
| <b>Solubility(ies)</b>                              | :                                                                                                                                                                                                                         |

| Media | Result      |
|-------|-------------|
| water | Not soluble |

|                                                |                                                                                                                              |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Miscible with water</b>                     | : No.                                                                                                                        |
| <b>Partition coefficient: n-octanol/ water</b> | : Not applicable.                                                                                                            |
| <b>Vapour pressure</b>                         | : <0.01 kPa (<0.075 mm Hg) [room temperature] [ISO 3104]<br>Not applicable. [50°C (122°F)]                                   |
| <b>Relative density</b>                        | :  0.8514 [ISO 12185]                     |
| <b>Density</b>                                 | :  0.8514 g/cm³ [15°C (59°F)] [ISO 12185] |
| <b>Vapour density</b>                          | : >2 [Air = 1]                                                                                                               |
| <b>Particle characteristics</b>                |                                                                                                                              |
| <b>Median particle size</b>                    | : Not applicable.                                                                                                            |

### 9.2 Other information

No other relevant physical and chemical parameters for the safe use of the product

## SECTION 10: Stability and reactivity

|                                                |                                                                                                        |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>10.1 Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| <b>10.2 Chemical stability</b>                 | : Stable under recommended storage and handling conditions (see Section 7).                            |
| <b>10.3 Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>10.4 Conditions to avoid</b>                | : No specific data.                                                                                    |
| <b>10.5 Incompatible materials</b>             | : Strong oxidising agents                                                                              |
| <b>10.6 Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

| Product/substance                                                    | Result                                                                                                       |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | <b>Rat - Male, Female - Oral - LD50</b><br>>5000 mg/kg<br>OECD [401 Read across]                             |
|                                                                      | <b>Rabbit - Male, Female - Dermal - LD50</b><br>>5000 mg/kg<br>OECD [402 Read across]                        |
|                                                                      | <b>Rat - Inhalation - LC50 Dusts and mists</b><br>5.1 mg/l [4 hours]<br>OECD [403]                           |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based | <b>Rat - Oral - LD50</b><br>>5000 mg/kg<br>OECD [401]                                                        |
|                                                                      | <b>Rabbit - Dermal - LD50</b><br>>5000 mg/kg<br>OECD [402]                                                   |
|                                                                      | <b>Rat - Inhalation - LC50 Dusts and mists</b><br>5.53 mg/l [4 hours]<br>OECD [403]                          |
| Distillates (petroleum), hydrotreated heavy paraffinic               | <b>Rat - Male, Female - Oral - LD50</b><br>>5000 mg/kg<br>OECD [401 Read across]                             |
|                                                                      | <b>Rabbit - Male, Female - Dermal - LD50</b><br>>5000 mg/kg<br>OECD [402 Read across]                        |
|                                                                      | <b>Rat - Male, Female - Inhalation - LC50 Dusts and mists</b><br>>5 mg/l [4 hours]<br>OECD [403 Read across] |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic            | <b>Rabbit - Dermal - LD50</b><br>>5000 mg/kg<br>OECD [402]                                                   |
|                                                                      | <b>Rat - Oral - LD50</b><br>>5000 mg/kg<br>OECD [420]                                                        |
|                                                                      | <b>Rat - Inhalation - LC50 Dusts and mists</b><br>>5 mg/l [4 hours]<br>OECD [403]                            |
| Distillates (petroleum), solvent-dewaxed light paraffinic            | <b>Rat - Oral - LD50</b><br>>5000 mg/kg<br>OECD [401]                                                        |

## SECTION 11: Toxicological information

Paraffin oils (petroleum), catalytic dewaxed heavy

### Rabbit - Dermal - LD50

>5000 mg/kg  
OECD [402]

### Rat - Inhalation - LC50 Dusts and mists

>5 mg/l [4 hours]  
OECD [403]

### Rat - Male, Female - Oral - LD50

>5000 mg/kg  
OECD 401 [Acute Oral Toxicity]

### Rabbit - Male, Female - Dermal - LD50

>5000 mg/kg  
OECD 402 [Acute Dermal Toxicity]

### Rat - Inhalation - LC50 Dusts and mists

>5.53 mg/l [4 hours]  
OECD [Equivalent or similar to OECD Guideline 403]

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

### Rat - Oral - LD50

3.2 g/kg  
OECD [401]  
Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Hypermotility, diarrhea

C14-16-18 Alkyl phenol

### Rat - Oral - LD50

2000 mg/kg

### Rat - Dermal - LD50

2000 mg/kg

### Acute toxicity estimates

| Product/substance                                                                       | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-----------------------------------------------------------------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                    | N/A          | N/A            | N/A                      | N/A                         | 5.1                                 |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                    | N/A          | N/A            | N/A                      | N/A                         | 5.53                                |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts | 3200         | N/A            | N/A                      | N/A                         | N/A                                 |

Based on available data, the classification criteria are not met.

### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

### Respiratory corrosion/irritation

Based on available data, the classification criteria are not met.

### Respiratory or skin sensitization

#### Skin

Based on available data, the classification criteria are not met. Contains sensitizer. May produce an allergic reaction.

## SECTION 11: Toxicological information

### Respiratory

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.

### Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

### Specific target organ toxicity (repeated exposure)

| Product/substance      | Result          |
|------------------------|-----------------|
| C14-16-18 Alkyl phenol | STOT RE 2, H373 |

Based on available data, the classification criteria are not met.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : irritation  
redness  
dryness  
cracking
- Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

## SECTION 11: Toxicological information

| Product/substance                                  | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paraffin oils (petroleum), catalytic dewaxed heavy | <b>Sub-chronic - Rat - Oral - LOAEL</b><br>OECD 408 [Equivalent or similar to OECD Guideline 408]<br>125 mg/kg<br><br><b>Sub-chronic - Rat - Dermal - NOAEL</b><br>OECD 411 [equivalent or similar to OECD Guideline 411]<br><30 mg/kg<br><br><b>Sub-acute - Rat - Inhalation - NOAEC</b><br>OECD 412 [Equivalent or similar to OECD Guideline 412]<br>980 mg/m <sup>3</sup> [6 hours per day] [4 weeks]<br><br>Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts<br><b>Sub-acute - Rat - Oral - NOAEL</b><br>OECD [Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test]<br>160 mg/kg |

|                              |                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>               | : No known significant effects or critical hazards.                                                                                                                                                                                                                                                                                                                                         |
| <b>Carcinogenicity</b>       | : During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water. |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards.                                                                                                                                                                                                                                                                                                                                         |
| <b>Reproductive toxicity</b> | : No known significant effects or critical hazards.                                                                                                                                                                                                                                                                                                                                         |

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/substance                                                    | Result                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | <b>Acute - LL50</b><br>OECD [203]<br>Fish - <i>Pimephales promelas</i><br>>100 mg/l [96 hours]<br><br><b>Acute - EL50</b><br>OECD [202]<br>Crustaceans - <i>Daphnia magna</i><br>>10000 mg/l [48 hours]<br><u>Effect</u> : Mobility<br><br><b>Acute - EL50</b><br>OECD [201]<br>Algae - <i>Pseudokirchneriella subcapitata</i> |

## SECTION 12: Ecological information

Lubricating oils (petroleum), C15-30,  
hydrotreated neutral oil-based

>100 mg/l [48 hours]

Effect: (growth rate)

### Chronic - NOEL

OECD [211]

Crustaceans - *Daphnia magna*

>1000 mg/l [21 days]

Effect: Reproduction

### Chronic - NOEL

OECD [201]

Algae - *Pseudokirchneriella subcapitata*

>100 mg/l [72 hours]

Effect: (growth rate)

### Acute - LL50

OECD 203

Fish - *Pimephales promelas*

>1000 mg/l [96 hours]

### Acute - EL50

OECD [202]

Crustaceans - *Daphnia magna*

>10000 mg/l [48 hours]

Effect: Mobility

### Acute - EL50

OECD 201

Algae - *Pseudokirchneriella subcapitata*

>100 mg/l [72 hours]

Effect: (growth rate)

### Chronic - NOEL

OECD 211

Crustaceans - *Daphnia magna*

>1000 mg/l [21 days]

Effect: Reproduction

### Chronic - NOEL

OECD 201

Algae - *Pseudokirchneriella subcapitata*

>100 mg/l [72 hours]

Effect: (growth rate)

Distillates (petroleum), hydrotreated heavy  
paraffinic

### Acute - EC50

OECD [202]

Crustaceans - *Daphnia magna*

>10000 mg/l [48 hours]

Effect: Mobility

### Acute - EC50

OECD [201]

Algae - *Pseudokirchneriella subcapitata*

>100 mg/l [72 hours]

Effect: (growth rate)

## SECTION 12: Ecological information

|                                                           |                                                                                                                                                |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | <b>Chronic - NOEL</b><br>Crustaceans - <i>Daphnia magna</i><br>>1000 mg/l [21 days]<br><u>Effect</u> : Reproduction                            |
|                                                           | <b>Chronic - NOEL</b><br>OECD [201]<br>Algae - <i>Pseudokirchneriella subcapitata</i><br>>100 mg/l [72 hours]<br><u>Effect</u> : (growth rate) |
|                                                           | <b>Acute - LL50</b><br>OECD 203<br>Fish - <i>Oncorhynchus mykiss</i><br>>1000 mg/l [96 hours]                                                  |
|                                                           | <b>Acute - EL50</b><br>OECD [202]<br>Crustaceans - <i>Daphnia magna</i><br>>10000 mg/l [48 hours]<br><u>Effect</u> : Mobility                  |
| Distillates (petroleum), solvent-dewaxed light paraffinic | <b>Chronic - NOEL</b><br>OECD [211]<br>Crustaceans - <i>Daphnia magna</i><br>>1000 mg/l [21 days]<br><u>Effect</u> : Reproduction              |
|                                                           | <b>Acute - EL50</b><br>OECD [203]<br>Fish - <i>Pimephales promelas</i><br>≥100 mg/l [96 hours]                                                 |
|                                                           | <b>Acute - EL50</b><br>OECD 202<br>Crustaceans - <i>Daphnia magna</i><br>10000 mg/l [48 hours]<br><u>Effect</u> : Mobility                     |
|                                                           | <b>Acute - EL50</b><br>OECD 201<br>Algae - <i>Pseudokirchneriella subcapitata</i><br>>100 mg/l [72 hours]<br><u>Effect</u> : (growth rate)     |
|                                                           | <b>Chronic - NOEL</b><br>OECD [211]<br>Crustaceans - <i>Daphnia magna</i><br>>1000 mg/l [21 days]<br><u>Effect</u> : Reproduction              |
|                                                           | <b>Chronic - NOEL</b><br>OECD [201]<br>Algae - <i>Pseudokirchneriella subcapitata</i><br>>100 mg/l [72 hours]<br><u>Effect</u> : (growth rate) |
|                                                           |                                                                                                                                                |

## SECTION 12: Ecological information

Paraffin oils (petroleum), catalytic dewaxed heavy

### Acute - LL50 - Fresh water

OECD 203 [Fish, Acute Toxicity Test]

Fish - *Pimephales promelas*

>100 mg/l [96 hours]

Effect: Mortality

### Acute - EL50 - Fresh water

OECD 202 [Daphnia sp. Acute Immobilization Test and Reproduction Test]

Daphnia - *Daphnia magna*

>10000 mg/l [48 hours]

Effect: Mobility

### Chronic - EL50 - Fresh water

OECD 211 [Daphnia Magna Reproduction Test]

Daphnia - *Daphnia magna*

>1000 mg/l [21 days]

Effect: Reproduction

### Acute - NOEL - Fresh water

OECD 201 [Alga, Growth Inhibition Test]

Algae - *Raphidocelis subcapitata*

≥100 mg/l [72 hours]

Effect: (growth rate)

### Acute - NOEL

EU [DIN 38412 / part 15]

Micro-organism

>1.93 mg/l [4 days]

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

### Acute - EC50

OECD [201]

Algae - *Desmodesmus subspicatus*

24 mg/l [72 hours]

### Acute - LC50

Fish

4.5 mg/l [96 hours]

### Acute - EC50

OECD [202]

Daphnia - *Daphnia magna*

23 mg/l [48 hours]

C14-16-18 Alkyl phenol

### Acute - EC50

OECD [202]

Daphnia - *Daphnia magna*

>100 mg/l [48 hours]

Molybdenum polysulphide long chain alkyl dithiocarbamate complex

### Acute - LC50

OECD 203

Fish - *Oncorhynchus mykiss*

94.8 mg/l [96 hours]

### Acute - EC50

OECD [202]

## SECTION 12: Ecological information

Crustaceans - *Daphnia magna*

50 mg/l [48 hours]

Effect: Mobility

### Acute - EC50

OECD [201]

Algae - *Pseudokirchneriella subcapitata*

9.6 mg/l [72 hours]

Effect: (growth rate)

### Chronic - NOEC

OECD [201]

Algae - *Pseudokirchneriella subcapitata*

4.1 mg/l [72 hours]

Effect: (growth rate)

Based on available data, the classification criteria are not met.

### 12.2 Persistence and degradability

| Product/substance                                                                       | Result                                                                                           |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                    | OECD 301F<br>31% [28 days] - Not readily                                                         |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                    | OECD 301F<br>31% [28 days] - Not readily                                                         |
| Distillates (petroleum), hydrotreated heavy paraffinic                                  | OECD 301F<br>31% [28 days] - Not readily                                                         |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                               | OECD 301F<br>31% [28 days] - Not readily                                                         |
| Distillates (petroleum), solvent-dewaxed light paraffinic                               | OECD 301F<br>31% [28 days] - Not readily                                                         |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                      | OECD 301 [ Ready Biodegradability - Manometric Respirometry Test]<br>31% [28 days] - Not readily |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate | OECD 301B<br>2% [28 days] - Not readily                                                          |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                        | OECD 301B<br>0% [28 days] - Not readily                                                          |

| Product/substance                                                    | Aquatic half-life | Photolysis | Biodegradability |
|----------------------------------------------------------------------|-------------------|------------|------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | -                 | -          | Not readily      |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based | -                 | -          | Not readily      |
| Distillates (petroleum), hydrotreated heavy paraffinic               | -                 | -          | Not readily      |

## SECTION 12: Ecological information

|                                                                                          |   |   |             |
|------------------------------------------------------------------------------------------|---|---|-------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                                | - | - | Not readily |
| Distillates (petroleum), solvent-dewaxed light paraffinic                                | - | - | Not readily |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                       | - | - | Not readily |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts  | - | - | Not readily |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate | - | - | Not readily |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                         | - | - | Not readily |

### 12.3 Bioaccumulative potential

| Product/substance                                                                        | LogK <sub>ow</sub> | BCF            | Potential |
|------------------------------------------------------------------------------------------|--------------------|----------------|-----------|
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                     | 6.1                | -              | High      |
| Distillates (petroleum), hydrotreated heavy paraffinic                                   | >4                 | -              | High      |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                                | 9.2                | 260            | Low       |
| Distillates (petroleum), solvent-dewaxed light paraffinic                                | 3.1                | -              | Low       |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                       | 1.99 to 18.02      | 0.4 to 71100   | High      |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts  | 0.56               | -              | Low       |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate | 9.2                | 260 [OECD 305] | Low       |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                         | >5.1               | 88             | Low       |

## SECTION 12: Ecological information

### 12.4 Mobility in soil

#### Soil/water partition coefficient

Not available.

#### Results of PMT and vPvM assessment

| Product/substance                                                                        | PMT | P   | M   | T   | vPvM | vP  | vM  |
|------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|-----|-----|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                     | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                     | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), hydrotreated heavy paraffinic                                   | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), hydrotreated heavy paraffinic                                   | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                                | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), solvent-dewaxed light paraffinic                                | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                       | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts  | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene                    | N/A | N/A | N/A | Yes | N/A  | N/A | N/A |
| C14-16-18 Alkyl phenol                                                                   | N/A | N/A | N/A | Yes | N/A  | N/A | N/A |
| Molybdenum polysulphide                                                                  | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| long chain alkyl dithiocarbamate complex                                                 |     |     |     |     |      |     |     |

**Mobility** : Not available.

**Mobility in soil** : Given its physical and chemical characteristics, the product generally shows low soil mobility The product is insoluble and floats on water. Loss by evaporation is limited

### 12.5 Results of PBT and vPvB assessment

## SECTION 12: Ecological information

| Product/substance                                                                         | PBT | P   | B   | T   | vPvB | vP  | vB  |
|-------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|-----|-----|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                      | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                      | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), hydrotreated heavy paraffinic                                    | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| OTHER LUBRICANT BASE OILS IP 346 < 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C                 | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                                 | No  | N/A | No  | No  | No   | N/A | No  |
| Distillates (petroleum), solvent-dewaxed light paraffinic                                 | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                        | No  | N/A | No  | No  | No   | N/A | No  |
| Phosphorodithioic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr) esters, zinc salts   | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate | No  | N/A | No  | No  | No   | N/A | No  |
| C14-16-18 Alkyl phenol                                                                    | N/A | N/A | N/A | Yes | N/A  | N/A | N/A |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                          | No  | N/A | No  | No  | No   | N/A | No  |

### 12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

## SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Yes.
- Packaging**
- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

|                                        | ADR/RID        | ADN            | IMDG           | ICAO/IATA      |
|----------------------------------------|----------------|----------------|----------------|----------------|
| <b>14.1 UN number or ID number</b>     | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| <b>14.2 UN proper shipping name</b>    | -              | -              | -              | -              |
| <b>14.3 Transport hazard class(es)</b> | -              | -              | -              | -              |
| <b>14.4 Packing group</b>              | -              | -              | -              | -              |
| <b>14.5 Environmental hazards</b>      | No.            | No.            | No.            | No.            |

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Maritime transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/REACH

#### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

## SECTION 15: Regulatory information

None of the components are listed.

### Ozone depleting substances

Not listed.

### Prior Informed Consent (PIC)

Not listed.

### Persistent Organic Pollutants

Not listed.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

#### Seveso Directive

This product is not controlled under the Seveso Directive.

#### EU regulations

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Industrial emissions  
(integrated pollution  
prevention and control) -  
Air** : Not listed

**Industrial emissions  
(integrated pollution  
prevention and control) -  
Water** : Not listed

#### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

|                                    |                                                                             |
|------------------------------------|-----------------------------------------------------------------------------|
| <b>Australia inventory (AIIC)</b>  | : <input checked="" type="checkbox"/> At least one component is not listed. |
| <b>Canada inventory</b>            | : All components are listed or exempted.                                    |
| <b>Chile inventory</b>             | : Not determined.                                                           |
| <b>China inventory (IECSC)</b>     | : All components are listed or exempted.                                    |
| <b>Colombia inventory (INSQUI)</b> | : Not determined.                                                           |
| <b>Europe inventory</b>            | : All components are listed or exempted.                                    |

## SECTION 15: Regulatory information

|                                             |                                                                                                                                                                                                             |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Japan inventory                             | :  <b>Japan inventory (CSCL):</b> All components are listed or exempted.<br><b>Japan inventory (ISHL):</b> Not determined. |
| New Zealand Inventory of Chemicals (NZIoC)  | : All components are listed or exempted.                                                                                                                                                                    |
| Philippines inventory (PICCS)               | : All components are listed or exempted.                                                                                                                                                                    |
| Korea inventory (KECI)                      | : All components are listed or exempted.                                                                                                                                                                    |
| Taiwan Chemical Substances Inventory (TCSI) | : All components are listed or exempted.                                                                                                                                                                    |
| Thailand inventory                          | : Not determined.                                                                                                                                                                                           |
| Turkey inventory                            | : Not determined.                                                                                                                                                                                           |
| United States inventory (TSCA 8b)           | : All components are listed or exempted.                                                                                                                                                                    |
| Vietnam inventory                           | : Not determined.                                                                                                                                                                                           |

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

|                                        |                                                                                                          |
|----------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>15.2 Chemical safety assessment</b> | : Risk management measures and safety conditions of use are included in the relevant sections of the SDS |
|----------------------------------------|----------------------------------------------------------------------------------------------------------|

## SECTION 16: Other information

 Indicates information that has changed from previously issued version.

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Abbreviations and acronyms</b> | : ACGIH = American Conference of Governmental Industrial Hygienists<br>ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway<br>ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road<br>ATE = Acute Toxicity Estimate<br>B = Bioaccumulative<br>BCF = Bioconcentration Factor<br>CSCL = Chemical Substances Control Law<br>DNEL = Derived No Effect Level<br>DMEL = Derived Minimal Effect Level<br>DMSO = Dimethyl Sulfoxide<br>EC50 = Half maximal effective concentration<br>EL50 = median Effective Loading<br>EUH statement = CLP-specific Hazard statement<br>HSE = Health, Safety and Environment<br>IATA = International Air Transport Association<br>IC50 = Half maximal inhibitory concentration<br>IDHL = Immediately dangerous to life or health<br>IMDG = International Maritime Dangerous Goods<br>IMO = International Maritime Organization<br>ISHL = Industrial Safety and Health Law<br>LC50 = Median lethal concentration<br>LD50 = Median lethal dose<br>LL50 = median Lethal Loading<br>LogKow = logarithm of the octanol/water partition coefficient<br>M = Mobile<br>N/A = Not available<br>NIOSH = National Institute of Occupational Safety and Health |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 16: Other information

NOAEL = No Observed Adverse Effect Level  
 NOEC No Observed Effect Concentration  
 NOEL = No Observed Effect Level  
 NOELR = No observed Effect Loading Rate  
 OECD = Organisation for Economic Co-operation and Development  
 OEL = Occupational Exposure Limit  
 OSHA = Occupational Safety and Health Administration.  
 P = Persistent  
 PBT = Persistent, Bioaccumulative and Toxic  
 PMT = Persistent, Mobile and Toxic  
 PNEC = Predicted No Effect Concentration  
 POP = Persistent Organic Pollutants  
 polyvinyl alcohol (PVA)  
 QSAR = Quantitative Structure–Activity Relationship  
 REL = Recommended Exposure Limit  
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
 SGG = Segregation Group  
 STEL = Short Term Exposure Limit  
 T = Toxic  
 TLV = Threshold Limit Value  
 TWA = Time Weight Average  
 vB = Very Bioaccumulative  
 vM = Very Mobile  
 VOC = Volatile Organic Compound  
 vP = Very Persistent  
 vPvB = Very Persistent and Very Bioaccumulative  
 vPvM = Very Persistent and Very Mobile  
 Unique Formula Identifier (UFI)  
 UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material

### Procedure used to derive the classification

Not classified.

### Full text of abbreviated H statements

|      |                                                                    |
|------|--------------------------------------------------------------------|
| 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.                                         |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                   |
| H412 | Harmful to aquatic life with long lasting effects.                 |
| H413 | May cause long lasting harmful effects to aquatic life.            |

### Full text of classifications

|                   |                                                                 |
|-------------------|-----------------------------------------------------------------|
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2                 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3                 |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4                 |
| Asp. Tox. 1       | ASPIRATION HAZARD - Category 1                                  |
| Eye Dam. 1        | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1                  |
| Skin Irrit. 2     | SKIN CORROSION/IRRITATION - Category 2                          |
| Skin Sens. 1B     | SKIN SENSITISATION - Category 1B                                |
| STOT RE 2         | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |

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## SECTION 16: Other information

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### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.