



# SAFETY DATA SHEET

**Gulf Supreme Duty ULE 10W-30**

**02160/10W-30/2**

**Issuing Date** 01-13-2022

**Revision Date** 01-13-2022

**Version** 2

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Name** Gulf Supreme Duty ULE 10W-30  
**Product Code(s)** 02160/10W-30/2

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

**Recommended Use** Engine oil  
**Uses advised against** Any other purpose.

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

**Supplier** Gulf Oil Supply Company Limited  
B2 Industry Street, Qormi, QRM 3000, Malta  
Tel: +44 207 321 6219  
E-mail: products@gulfoilltd.com, sds@gulfoilltd.com

### 1.4. Emergency telephone number

Europe: (+) 44 808 189 0979 (Code 334276)  
(+) 1 760 476 3961 (Code 334276 )  
(+) 32 (0) 3241 33 55

**Poison Information Center telephone number** (IE) +353 (0)1 809 2166 (08:00 - 22:00), (IS) +354 543 2222

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

**Signal word**  
None

#### **Hazard statements**

EUH208 - Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex May produce an allergic reaction.

**Precautionary Statements - EU (§28, 1272/2008)**  
None

**2.3. Other hazards**

No information available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures**

This product is a mixture. Health hazard information is based on its ingredients

| Chemical name                                                                               | EC No     | CAS No        | Weight-%   | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                                                                                                                                                                  | REACH registration number |
|---------------------------------------------------------------------------------------------|-----------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                      | -         | -             | 50% - 100% | **                                                                                                                                                                                                                                               | -                         |
| Highly refined, low viscosity mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt @40°C) | -         | -             | 25% - 50%  | Asp. Tox. 1 (H304)<br>(EUH066)                                                                                                                                                                                                                   | -                         |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate      | 406-040-9 | 125643-61-0   | 2.5% - 10% | Aquatic Chronic 4 (H413)                                                                                                                                                                                                                         | 01-0000015551-76-xxxx     |
| Bis(nonylphenyl)amine                                                                       | 253-249-4 | 36878-20-3    | 1% - 2.5%  | Aquatic Chronic 4 (H413)<br><br>ATE (Oral) >5000 mg/kg<br>ATE (Dermal) >2000 mg/kg                                                                                                                                                               | 01-2119488911-28-xxxx     |
| zinc<br>bis[O-(6-methylheptyl)]<br>bis[O-(sec-butyl)]<br>bis(dithiophosphate)               | 298-577-9 | 93819-94-4    | 1% - 2.5%  | Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Aquatic Chronic 2 (H411)<br><br>SCL<br>H315 C: >=6.25%<br>H319 C: >=10% - <12.5%<br>H318 C: >=12.5%<br><br>ATE<br>Oral LD50: 2,600 mg/kg<br>Inhalation LC50: > 2 mg/l<br>Dermal LD50: > 3,160 mg/kg | 01-2119543726-33-xxxx     |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                            | 457-320-2 | NOT AVAILABLE | 0% - 1%    | Skin Irrit. 2 (H315)<br>Skin Sens. 1B (H317)<br>Aquatic Chronic 3 (H412)<br><br>ATE (Oral) >2000                                                                                                                                                 | 01-0000019337-66-xxxx     |

|  |  |  |  |                                      |  |
|--|--|--|--|--------------------------------------|--|
|  |  |  |  | mg/kg<br>ATE (Dermal)<br>>2000 mg/kg |  |
|--|--|--|--|--------------------------------------|--|

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. See Section 15 for additional information on base oils. The highly refined base oil may be described by one or more of the following generic CAS identifiers: 64742-54-7, 64742-65-0, 64742-52-5, 64742-53-6, 64742-62-7, 64742-57-0, 64742-01-4, 64741-88-4, 64742-96-4, 64741-97-5, 64742-55-8, 64742-56-9, 64741-89-5, 8042-47-5.

\*\* Substances for which there are Community workplace exposure limits

One or more substances contained within this product has a specific concentration limit. This has been taken into account when calculating the overall hazard classification of the product.

**Full text of H- and EUH-phrases: see section 16**

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                                           |                                                                                                                                                                                                               |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | May produce an allergic reaction. If symptoms persist, call a physician.                                                                                                                                      |
| <b>Inhalation</b>                         | Remove to fresh air.                                                                                                                                                                                          |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. May cause an allergic skin reaction. If symptoms persist, call a physician. |
| <b>Eye contact</b>                        | Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.                                                                                                              |
| <b>Ingestion</b>                          | Clean mouth with water. Drink plenty of water. Do not induce vomiting without medical advice.                                                                                                                 |
| <b>Self-protection of the first aider</b> | Use personal protective equipment as required.                                                                                                                                                                |

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

|                 |                                                                      |
|-----------------|----------------------------------------------------------------------|
| <b>Symptoms</b> | Prolonged contact may cause redness and irritation. Rashes. Itching. |
|-----------------|----------------------------------------------------------------------|

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

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| <b>Note to physicians</b> | May cause sensitization by skin contact. Treat symptomatically. |
|---------------------------|-----------------------------------------------------------------|

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use: Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam. Water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

#### Unsuitable extinguishing media

Do not use straight streams. Do not scatter spilled material with high pressure water streams.

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

#### Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes. The product is insoluble and floats on water.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

### **5.3. Advice for firefighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

**Personal precautions** Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take precautionary measures against static discharges.

**For emergency responders** Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

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

**Methods for containment** Dike to collect large liquid spills.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

**General hygiene considerations** When using do not eat, drink or smoke. Wash hands before breaks and after work. Take off contaminated clothing and wash before reuse.

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

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep cool. Protect from sunlight. Keep away from open flames, hot surfaces and sources of ignition.

**Materials to Avoid** Oxidizing agent

### **7.3. Specific end use(s)**

Engine oil

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 8.1. Control parameters

### Exposure limits

#### Legend

(s) - Skin; TWA - Time-Weighted Average; STEL - Short Term Exposure Limit; Ceiling - Ceiling Value; TLV® - Threshold Limit Value; PEL (Permissible Exposure Limit)

| Chemical name                                                                                     | European Union | United Kingdom | France | Spain                                                       |
|---------------------------------------------------------------------------------------------------|----------------|----------------|--------|-------------------------------------------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                            |                |                |        | VLA-EC: 10 mg/m <sup>3</sup><br>VLA-ED: 5 mg/m <sup>3</sup> |
| Highly refined, low viscosity<br>mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt<br>@40°C) |                |                |        | VLA-EC: 10 mg/m <sup>3</sup><br>VLA-ED: 5 mg/m <sup>3</sup> |

Spain Límites de Exposición Profesional Para Agentes Químicos en España (Ley 31/1995).

| Chemical name                                                                                     | Germany | Italy                    | Portugal                                               | Netherlands              |
|---------------------------------------------------------------------------------------------------|---------|--------------------------|--------------------------------------------------------|--------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                            |         | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> |
| Highly refined, low viscosity<br>mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt<br>@40°C) |         | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> |

Italy Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro (ISPESL), Allegato XXXVIII e Allegato XLIII - Valori Limite di Esposizione Professionale.

Portugal Valores-limite e índices biológicos de exposição profissional a agentes químicos. Quadro 1 - Valores Limite de Exposição (Norma Portuguesa NP 1796:2014).

Netherlands Grenswaarden gezondheidsschadelijke stoffen; Arbeidsomstandighedenregeling.

| Chemical name                                                                                     | Austria | Switzerland | Poland                                        | Ireland                                                          |
|---------------------------------------------------------------------------------------------------|---------|-------------|-----------------------------------------------|------------------------------------------------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                            |         |             | TWA: 5 mg/m <sup>3</sup><br>frakcja wdychalna | STEL: 10 mg/m <sup>3</sup><br>TWA: 5 mg/m <sup>3</sup><br>(Mist) |
| Highly refined, low viscosity<br>mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt<br>@40°C) |         |             | TWA: 5 mg/m <sup>3</sup><br>frakcja wdychalna | STEL: 10 mg/m <sup>3</sup><br>TWA: 5 mg/m <sup>3</sup><br>(Mist) |

Poland Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 6 czerwca 2014 w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy (Dz.U. 2016 Nr. 944).

Ireland 2016 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001.

| Chemical name                                                                                     | Finland                            | Denmark                             | Norway                              | Sweden                                                               |
|---------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                            | TWA: 5mg/m <sup>3</sup> (Öljysumu) | TWA: 1 mg/m <sup>3</sup> (Olietåge) | TWA: 1 mg/m <sup>3</sup> (Oljetåke) | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup><br>(Oljedimma) |
| Highly refined, low viscosity<br>mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt<br>@40°C) | TWA: 5mg/m <sup>3</sup> (Öljysumu) | TWA: 1 mg/m <sup>3</sup> (Olietåge) | TWA: 1 mg/m <sup>3</sup> (Oljetåke) | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup><br>(Oljedimma) |

Finland Förrordningen om koncentrationer som befunnits skadliga, 268/2014 - HTP-arvot 2014.

Denmark Bekendtgørelse om grænseværdier for stoffer og materialer. Arbejdstilsynets bekendtgørelse nr. 507 Bilag 2 Afsnit A.

Norway Forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (Forskrift om tiltaks- og grenseverdier), FOR-2011-12-06-1358, FOR-2016-06-21-760, FOR-2016-12-22-1860.

Sweden Arbetsmiljöverkets föreskrifter om hygieniska gränsvärden och allmänna råd om tillämpningen av föreskrifterna.

| Chemical name                                                                                     | Czech Republic                                            | Hungary                  | Bulgaria                 | Romania                                                |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------|--------------------------|--------------------------------------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                            | TWA: 5 mg/m <sup>3</sup><br>Ceiling: 10 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> |
| Highly refined, low viscosity<br>mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt<br>@40°C) | TWA: 5 mg/m <sup>3</sup><br>Ceiling: 10 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup> | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> |

Czech Republic Nařízení vlády 93/2012, kterým se mění nařízení vlády č.361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění nařízení vlády č.68/2010 Sb.

Hungary 25/2000. (IX. 30.) EüM-SzCsM együttes rendelet a munkahelyek kémiai biztonságáról (62/2016. (XII.29.)).

Bulgaria НАРЕДБА #13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа.

Romania Valori Limit Obligatorii Nationale de expunere profesională ale agenților chimici - Anex Nr.1 Publicat în Monitorul Oficial, Partea I nr. 845.

| Chemical name                                                                               | Greece                   | Cyprus | Turkey | Malta |
|---------------------------------------------------------------------------------------------|--------------------------|--------|--------|-------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                      | TWA: 5 mg/m <sup>3</sup> |        |        |       |
| Highly refined, low viscosity mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt @40°C) | TWA: 5 mg/m <sup>3</sup> |        |        |       |

Greece Οριακές Τιμές Επαγγελματικής Έκθεσης - Προστασία της υγείας και της ασφάλειας των εργαζομένων που εκτίθενται σε ορισμένους καρκινογόνους και μεταλλαξιογόνους παράγοντες 127/2000.

| Chemical name                                                                               | Belgium                                                | Luxembourg | Iceland | Croatia |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------|------------|---------|---------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                      | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> |            |         |         |
| Highly refined, low viscosity mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt @40°C) | TWA: 5 mg/m <sup>3</sup><br>STEL: 10 mg/m <sup>3</sup> |            |         |         |

Belgium Arrêté royal relatif à la protection de la santé et de la sécurité des travailleurs contre les risques liés à des agents chimiques sur le lieu de travail.

| Chemical name                                                                               | Russia | Estonia | Latvia                   | Lithuania                                             |
|---------------------------------------------------------------------------------------------|--------|---------|--------------------------|-------------------------------------------------------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                      |        |         | TWA: 5 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup> |
| Highly refined, low viscosity mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt @40°C) |        |         | TWA: 5 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup> |

Latvia Ministru Kabineta noteikumi Nr. 325 - Darba aizsardzības prasības, saskaroties ar ķīmiskajām vielām darba vietās.

Lithuania Del Lietuvos higienos normos HN 23:2011 "Cheminu medžiagu profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai".

| Chemical name                                                                               | Belarus | Ukraine | Slovakia                | Slovenia |
|---------------------------------------------------------------------------------------------|---------|---------|-------------------------|----------|
| Highly refined base oil<br>(Viscosity >20.5 cSt @40°C)                                      |         |         | TWA: 5mg/m <sup>3</sup> |          |
| Highly refined, low viscosity mineral oils/hydrocarbons<br>(Viscosity >7 - <20.5 cSt @40°C) |         |         | TWA: 5mg/m <sup>3</sup> |          |

Slovakia Nariadenie Vlády Slovenskej republiky z 16. januára 2002 o ochrane zdravia pri práci s karcinogénymi a mutagénymi faktormi.

## Derived No Effect Level (DNEL)

### Workers Systemic toxicity

| Chemical name                                                                                | Long term - Oral exposure | Long term - Dermal exposure | Long term - Inhalation exposure | Short term - Oral Exposure | Short term - Dermal exposure | Short term - Inhalation exposure |
|----------------------------------------------------------------------------------------------|---------------------------|-----------------------------|---------------------------------|----------------------------|------------------------------|----------------------------------|
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate |                           | 220 µg/kg                   | 2.33 mg/m <sup>3</sup>          |                            | 20 mg/kg                     | 1 750 mg/m <sup>3</sup>          |
| Bis(nonylphenyl)amine                                                                        |                           | 0.62 mg/kg                  | 4.37 mg/kg                      |                            |                              |                                  |
| zinc bis[O-(6-methylheptyl)]                                                                 |                           | 0.58 mg/kg                  | 8.31 mg/m <sup>3</sup>          |                            |                              |                                  |

|                                                                        |  |            |                        |  |  |  |
|------------------------------------------------------------------------|--|------------|------------------------|--|--|--|
| bis[O-(sec-butyl)]<br>bis(dithiophosphate)                             |  |            |                        |  |  |  |
| Molybdenum polysulphide long<br>chain alkyl dithiocarbamate<br>complex |  | 2.24 mg/kg | 3.52 mg/m <sup>3</sup> |  |  |  |

**Workers Local effects**

| Chemical name                                                                                | Long term - Oral<br>exposure | Long term -<br>Dermal exposure | Long term -<br>Inhalation<br>exposure | Short term - Oral<br>Exposure | Short term -<br>Dermal exposure | Short term -<br>Inhalation<br>exposure |
|----------------------------------------------------------------------------------------------|------------------------------|--------------------------------|---------------------------------------|-------------------------------|---------------------------------|----------------------------------------|
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate |                              | 6 µg/cm <sup>2</sup>           |                                       |                               | 1 mg/cm <sup>2</sup>            |                                        |
| Molybdenum polysulphide long<br>chain alkyl dithiocarbamate<br>complex                       |                              | 112 µg/cm <sup>2</sup>         |                                       |                               |                                 |                                        |

**Consumers Systemic toxicity**

| Chemical name                                                                                | Long term - Oral<br>exposure | Long term -<br>Dermal exposure | Long term -<br>Inhalation<br>exposure | Short term - Oral<br>Exposure | Short term -<br>Dermal exposure | Short term -<br>Inhalation<br>exposure |
|----------------------------------------------------------------------------------------------|------------------------------|--------------------------------|---------------------------------------|-------------------------------|---------------------------------|----------------------------------------|
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate | 160 µg/kg                    | 330 µg/kg                      | 740 µg/m <sup>3</sup>                 | 50 mg/kg                      | 50 mg/kg                        | 875 mg/m <sup>3</sup>                  |
| Bis(nonylphenyl)amine                                                                        | 0.31 mg/kg                   | 0.31 mg/kg                     | 1.09 mg/kg                            |                               |                                 |                                        |
| zinc bis[O-(6-methylheptyl)]<br>bis[O-(sec-butyl)]<br>bis(dithiophosphate)                   | 0.24 mg/kg                   | 0.29 mg/kg                     | 2.11 mg/m <sup>3</sup>                |                               |                                 |                                        |
| Molybdenum polysulphide long<br>chain alkyl dithiocarbamate<br>complex                       | 0.5 mg/kg                    | 1.12 mg/kg                     | 1.76 mg/m <sup>3</sup>                |                               |                                 |                                        |

**Consumers Local effects**

| Chemical name                                                                                | Long term - Oral<br>exposure | Long term -<br>Dermal exposure | Long term -<br>Inhalation<br>exposure | Short term - Oral<br>Exposure | Short term -<br>Dermal exposure | Short term -<br>Inhalation<br>exposure |
|----------------------------------------------------------------------------------------------|------------------------------|--------------------------------|---------------------------------------|-------------------------------|---------------------------------|----------------------------------------|
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate |                              |                                |                                       |                               | 8.33 mg/cm <sup>2</sup>         |                                        |
| Molybdenum polysulphide long<br>chain alkyl dithiocarbamate<br>complex                       |                              | 0.056 mg/cm <sup>2</sup>       |                                       |                               |                                 |                                        |

**Predicted No Effect Concentration (PNEC)**

| Chemical name                                                                                | Fresh water | Sea water    | Fresh water sediment | Sea sediment  | Soil          |
|----------------------------------------------------------------------------------------------|-------------|--------------|----------------------|---------------|---------------|
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate | 0.0043 mg/l | 0.00043 mg/l | 233 mg/kg            | 23.3 mg/kg    | 0.004 mg/l    |
| Bis(nonylphenyl)amine                                                                        | 0.1 mg/l    | 0.01 mg/l    | 132000 mg/kg         | 13200 mg/kg   | 263000 mg/kg  |
| zinc bis[O-(6-methylheptyl)]<br>bis[O-(sec-butyl)]<br>bis(dithiophosphate)                   | 0.004 mg/L  | 0.0046 mg/L  | 0.0116 mg/kg         | 0.00116 mg/kg | 0.00528 mg/kg |
| Molybdenum polysulphide<br>long chain alkyl<br>dithiocarbamate complex                       | 0.081 mg/L  | 0.0081 mg/L  | 195 mg/kg            | 19.5 mg/kg    | 0.872 mg/kg   |

**8.2. Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

### **Personal protective equipment**

Engineering controls should be considered as the first line of protection against adverse exposure to harmful substances. Administrative controls and PPE should be used in the absence of engineering controls or as supplemental controls where engineering controls are insufficient in reducing specific exposures to an acceptable level.

#### **Eye Protection**

Safety glasses with side-shields.

#### **Hand Protection**

The following glove type may be suitable for handling this product. Protective gloves complying with EN 374.

Nitrile rubber                      Glove thickness => 0.38 mm Break through time => 480 min

Butyl rubber                      Glove thickness => 0.64 mm Break through time => 480 min

Glove material suitability will vary depending on specific use conditions. Consideration should be given to variables such as operational characteristics, anticipated contact time, task requirements and other factors relevant to the selection of PPE. 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. Any specific glove information provided is based on published literature and glove manufacturer data. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

#### **Skin and body protection**

Long sleeved clothing.

#### **Respiratory protection**

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

*This information is based on the state in which the specific product is delivered and on the intended use specified within this SDS. This information is provided based on literature reference, manufacturer specifications and recommendations and/or derived by analogy with similar substances. The level of protection and types of exposure controls will vary depending on potential exposure conditions.*

#### **Hygiene measures**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

#### **Environmental Exposure Controls**

No special environmental precautions required.

#### **Thermal hazards**

None under normal use conditions

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

|                |                  |
|----------------|------------------|
| Physical state | Liquid           |
| Color          | amber clear      |
| Odor           | Hydrocarbon-like |

| <u>Property</u>                        | <u>Values</u>       | <u>Remarks • Method</u> |
|----------------------------------------|---------------------|-------------------------|
| Melting point / freezing point         | No data available   |                         |
| Boiling point / boiling range          | No data available   |                         |
| Flammability                           | Ignitable substance |                         |
| Flammability Limit in Air              |                     |                         |
| Upper flammability or explosive limits | No data available   |                         |
| Lower flammability or explosive        | No data available   |                         |

|                                  |                    |                         |
|----------------------------------|--------------------|-------------------------|
| <b>limits</b>                    |                    |                         |
| <b>Flash point</b>               | 229 °C / 444 °F    | ASTM D 92               |
| <b>Autoignition temperature</b>  | No data available  |                         |
| <b>Decomposition temperature</b> | No data available  |                         |
| <b>pH</b>                        | No data available  |                         |
| <b>Kinematic viscosity</b>       | 82 cSt @ 40 °C     | ASTM D 445              |
| <b>Solubility</b>                | Insoluble in water | Soluble in hydrocarbons |
| <b>Partition coefficient</b>     | Not applicable     |                         |
| <b>Vapor pressure</b>            | No data available  |                         |
| <b>Relative density</b>          | 0.866              | @15°C                   |
| <b>Vapor density</b>             | No data available  |                         |
| <b>Particle characteristics</b>  | Not applicable     |                         |

**9.2. Other information**

|                                     |                  |            |
|-------------------------------------|------------------|------------|
| <b>Viscosity, kinematic (100°C)</b> | 12.4 cSt @ 100°C | ASTM D 445 |
| <b>Pour Point</b>                   | -39 °C / -38 °F  | ASTM D 97  |

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

None under normal use conditions.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

None under normal use conditions

**10.4. Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

Oxidizing agent.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors; Carbon monoxide; Carbon dioxide (CO<sub>2</sub>)

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Product Information - Principle Routes of Exposure**

|                     |                                                                                          |
|---------------------|------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | None known                                                                               |
| <b>Eye contact</b>  | None known                                                                               |
| <b>Skin contact</b> | Repeated or prolonged skin contact may cause allergic reactions with susceptible persons |
| <b>Ingestion</b>    | None known                                                                               |

**Acute toxicity - Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**Acute toxicity - Component Information**

| Chemical name                                                                                    | Oral LD50          | Dermal LD50           | Inhalation LC50 |
|--------------------------------------------------------------------------------------------------|--------------------|-----------------------|-----------------|
| Highly refined base oil (Viscosity >20.5 cSt @40°C)                                              | >2000 mg/kg        | >2000 mg/kg           | >5 mg/L         |
| Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)         | >2000 mg/kg        | >2000 mg/kg           | >5 mg/L         |
| reaction mass of isomers of:<br>C7-9-alkyl<br>3-(3,5-di-tertbutyl-4-hydroxyphenyl)<br>propionate | >2000 mg/kg (Rat)  | >2000 mg/kg (Rat)     |                 |
| Bis(nonylphenyl)amine                                                                            | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rat)    |                 |
| zinc bis[O-(6-methylheptyl)]<br>bis[O-(sec-butyl)]<br>bis(dithiophosphate)                       | 2600 mg/kg (Rat)   | > 3160 mg/kg (Rabbit) | > 2 mg/l (Rat)  |

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Sensitization****Respiratory Sensitization**

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

**Skin sensitization**

Repeated contact may cause allergic reactions in very susceptible persons.

**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 systemic toxicity (single exposure)** Based on available data, the classification criteria are not met

**Specific target organ systemic toxicity (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**

**Endocrine Disruptor Information** None known

**Other information** No information available

**SECTION 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

No special environmental measures are necessary

| Chemical name                                       | Algae/aquatic plants | Fish            | Crustacea       |
|-----------------------------------------------------|----------------------|-----------------|-----------------|
| Highly refined base oil (Viscosity >20.5 cSt @40°C) | >100: 72 h mg/L      | >100: 96 h mg/L | >100: 48 h mg/L |

|                                                                                          |                                                                                               |                                                                                          |                                                                                |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) | >100: 72 h mg/L                                                                               | >100: 96 h mg/L                                                                          | >100: 48 h mg/L                                                                |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tertbutyl-4-hydroxyphenyl) propionate  | >3: 72 h Desmodesmus subspicatus mg/L EC50                                                    | >74: 96 h Danio rerio mg/L LC50                                                          | >100: 24 h Daphnia magna mg/L EC50                                             |
| Bis(nonylphenyl)amine                                                                    | >100: 72 h Desmodesmus subspicatus mg/L EC50<br>600: 72 h Selenastrum capricornutum mg/L EC50 | >100: 96 h Danio rerio mg/L LC50<br>1000: 96 h Pimephales promelas mg/L LC50 semi-static | >100: 48 h Daphnia magna mg/L EC50<br>14 - 28: 96 h Mysidopsis bahia mg/L LC50 |
| zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)                     | 2.1: 96 h Selenastrum capricornutum mg/L EC50                                                 | 4.5: 96 h Oncorhynchus mykiss mg/L LC50<br>11: 96 h Pimephales promelas mg/L LC50 static | 5.4: 48 h Daphnia magna mg/L EC50                                              |
| Molybdenum polysulphide long chain alkyl dithiocarbamate complex                         | 9.62: 72 h Pseudokirchneriella subcapitata mg/L EC50                                          | 94.8: 96 h Oncorhynchus mykiss mg/L NOEC semi-static                                     | 50: 48 h Daphnia magna mg/L EC50                                               |

**12.2. Persistence and degradability**

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

**12.3. Bioaccumulative potential**

| Chemical name                                                                          | Partition coefficient |
|----------------------------------------------------------------------------------------|-----------------------|
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tertbutyl-4-hydroxyphenyl)propionate | 9.2                   |
| Bis(nonylphenyl)amine                                                                  | >7.6                  |
| zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)                   | 0.9                   |

**12.4. Mobility in soil**

The product is insoluble and floats on water.

**12.5. Results of PBT and vPvB assessment**

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT) This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

**12.6. Endocrine Disruptor Information**

None known

**12.7. Other adverse effects**

None known

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods****Waste from residues/unused products**

Should not be released into the environment. Dispose of in accordance with local regulations.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Observe all label precautions until container is cleaned, reconditioned or destroyed

**Waste codes / waste designations according to EWC / AVV** Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: TRANSPORT INFORMATION

### **14.1. UN-Number**

Not regulated

### **14.2. UN proper shipping name**

Not regulated

### **14.3. Transport hazard class**

Not regulated

### **14.4. Packing Group**

Not regulated

### **14.5. Environmental Hazards**

None

### **14.6. Special precautions for users**

None

### **14.7. Maritime transport in bulk according to IMO instruments**

Not applicable

**IMDG** Not regulated

**ADR** Not regulated

**IATA** Not regulated

**ADN** Not regulated

## SECTION 15: REGULATORY INFORMATION

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **EU legislation**

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)  
Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)  
European Agreement concerning the International Carriage of Dangerous Goods by Road  
Safety Data Sheet according to Regulation EC 1907/2006 (REACH) with its amendment regulation EU 2020/878  
European Agreement concerning the International Carriage of Dangerous Goods by Road/ Regulations concerning the International Carriage of Dangerous Goods by Rail  
International Civil Aviation Organization / International Air Transport Association Dangerous Goods Regulation

#### **Substance(s) of Very High Concern**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59).

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII). This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).

**National regulations****Germany Water hazard class (WGK)**

Hazard to water/Class 2

**Product Registration number**

Denmark Registration (DK)

No information available

**International Regulations****Ozone-depleting substances (ODS)**

Not applicable

**The Stockholm Convention on Persistent Organic Pollutants**

Not applicable

**The Rotterdam Convention**

Not applicable

**International Inventories****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

All ingredients are on the inventory or exempt from listing

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

All ingredients are on the inventory or exempt from listing

**AICS** - Australian Inventory of Chemical Substances

All ingredients are on the inventory or exempt from listing

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

All ingredients are on the inventory or exempt from listing

**KECL** - Korean Existing and Evaluated Chemical Substances

All ingredients are on the inventory or exempt from listing

**IECSC** - China Inventory of Existing Chemical Substances

Contact supplier for inventory compliance status

**ENCS** - Japan Existing and New Chemical Substances

All ingredients are on the inventory or exempt from listing

**TCSI** - Taiwan National Existing Chemical Inventory

Contact supplier for inventory compliance status

**NZIoC** - New Zealand Inventory of Chemicals

All ingredients are on the inventory or exempt from listing

**Other Information**

The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

| Chemical name                                                                        | CAS No      | EC No     | REACH registration number |
|--------------------------------------------------------------------------------------|-------------|-----------|---------------------------|
| Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated           | 101316-72-7 | 309-877-7 | 01-2119489969-06-xxxx     |
| Distillates (petroleum), solvent-refined heavy paraffinic                            | 64741-88-4  | 265-090-8 | 01-2119488706-23-xxxx     |
| Distillates (petroleum), solvent-refined light paraffinic                            | 64741-89-5  | 265-091-3 | 01-2119487081-40-xxxx     |
| Residual oils (petroleum), solvent deasphalted                                       | 64741-95-3  | 265-096-0 | 01-2119487081-40-xxxx     |
| Distillates (petroleum), solvent-refined heavy naphthenic                            | 64741-96-4  | 265-097-6 | 01-2119483621-38-xxxx     |
| Distillates (petroleum), solvent-refined light naphthenic                            | 64741-97-5  | 265-098-1 | 01-2119480374-36-xxxx     |
| Residual oils (petroleum), solvent-refined                                           | 64742-01-4  | 265-101-6 | 01-2119488707-21-xxxx     |
| Distillates (petroleum), hydrotreated heavy naphthenic                               | 64742-52-5  | 265-155-0 | 01-2119467170-45-xxxx     |
| Distillates (petroleum), hydrotreated light naphthenic                               | 64742-53-6  | 265-156-6 | 01-2119480375-34-xxxx     |
| Distillates (petroleum), hydrotreated heavy paraffinic                               | 64742-54-7  | 265-157-1 | 01-2119484627-25-xxxx     |
| Distillates (petroleum), hydrotreated light paraffinic                               | 64742-55-8  | 265-158-7 | 01-2119487077-29-xxxx     |
| Distillates (petroleum), solvent-dewaxed light paraffinic                            | 64742-56-9  | 265-159-2 | 01-2119480132-48-xxxx     |
| Residual oils (petroleum), hydrotreated                                              | 64742-57-0  | 265-160-8 | 01-2119489287-22-xxxx     |
| Lubricating oils (petroleum), hydrotreated spent                                     | 64742-58-1  | 265-161-3 |                           |
| Residual oils (petroleum), solvent-dewaxed                                           | 64742-62-7  | 265-166-0 | 01-2119480472-38-xxxx     |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic                            | 64742-65-0  | 265-169-7 | 01-2119471299-27-xxxx     |
| Paraffin oils (petroleum), catalytic dewaxed heavy                                   | 64742-70-7  | 265-174-4 | 01-2119487080-42-xxxx     |
| Paraffin oils (petroleum), catalytic dewaxed light                                   | 64742-71-8  | 265-176-5 | 01-2119485040-48-xxxx     |
| Lubricating oils (petroleum), C>25, hydrotreated bright stock-based                  | 72623-83-7  | 276-735-8 |                           |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity | 72623-85-9  | 276-736-3 | 01-2119555262-43-xxxx     |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                 | 72623-86-0  | 276-737-9 | 01-2119474878-16-xxxx     |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                 | 72623-87-1  | 276-738-4 | 01-2119474889-13-xxxx     |
| Lubricating oils                                                                     | 74869-22-0  | 278-012-2 | 01-2119495601-36-xxxx     |
| White mineral oil (petroleum)                                                        | 8042-47-5   | 232-455-8 |                           |

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

| Chemical name                                             | CAS No     | EC No     | REACH registration number |
|-----------------------------------------------------------|------------|-----------|---------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic    | 63742-54-7 | 265-157-1 | 01-2119484627-25-xxxx     |
| Distillates (petroleum), heavy hydrocracked               | 64741-76-0 | 265-077-7 | 01-2119486951-26-xxxx     |
| Distillates (petroleum), solvent-refined heavy paraffinic | 64741-88-4 | 265-090-8 | 01-2119488706-23-xxxx     |
| Distillates (petroleum), solvent-refined light paraffinic | 64741-89-5 | 265-091-3 | 01-2119487067-30-xxxx     |
| Residual oils (petroleum), solvent deasphalted            | 64741-95-3 | 265-096-0 | 01-2119487081-40-xxxx     |
| Distillates (petroleum), solvent-refined heavy naphthenic | 64741-96-4 | 265-097-6 | 01-2119483621-38-xxxx     |
| Distillates (petroleum), solvent-refined light naphthenic | 64741-97-5 | 265-098-1 | 01-2119480374-36-xxxx     |
| Residual oils (petroleum), solvent-refined                | 64742-01-4 | 265-101-6 | 01-2119488707-21-xxxx     |
| Distillates (petroleum), hydrotreated heavy naphthenic    | 64742-52-5 | 265-155-0 | 01-2119467170-45-xxxx     |
| Distillates (petroleum), hydrotreated light naphthenic    | 64742-53-6 | 265-156-6 | 01-2119480375-34-xxxx     |
| Distillates (petroleum), hydrotreated heavy paraffinic    | 64742-54-7 | 265-157-1 | 01-2119484627-25-xxxx     |
| Distillates (petroleum), hydrotreated light paraffinic    | 64742-55-8 | 265-158-7 | 01-2119487077-29-xxxx     |
| Distillates (petroleum), solvent-dewaxed light paraffinic | 64742-56-9 | 265-159-2 | 01-2119480132-48-xxxx     |
| Residual oils (petroleum), hydrotreated                   | 64742-57-0 | 265-160-8 | 01-2119489287-22-xxxx     |
| Lubricating oils (petroleum), hydrotreated spent          | 64742-58-1 | 265-161-3 |                           |
| Residual oils (petroleum), solvent-dewaxed                | 64742-62-7 | 265-166-0 | 01-2119480472-38-xxxx     |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | 265-169-7 | 01-2119471299-27-xxxx     |
| Paraffin oils (petroleum), catalytic dewaxed heavy        | 64742-70-7 | 265-174-4 | 01-2119487080-42-xxxx     |
| Paraffin oils (petroleum), catalytic dewaxed light        | 64742-71-8 | 265-176-5 | 01-2119485040-48-xxxx     |
| Dec-1-ene, homopolymer, hydrogenated                      | 68037-01-4 | 500-183-1 | 01-2119486452-34-xxxx     |
| Lubricating oils (petroleum), C>25, hydrotreated bright   | 72623-83-7 | 276-735-8 |                           |

|                                                                                      |            |           |                       |
|--------------------------------------------------------------------------------------|------------|-----------|-----------------------|
| stock-based                                                                          |            |           |                       |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity | 72623-85-9 | 276-736-3 | 01-2119555262-43-xxxx |
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based                 | 72623-86-0 | 276-737-9 | 01-2119474878-16-xxxx |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based                 | 72623-87-1 | 276-738-4 | 01-2119474889-13-xxxx |
| Lubricating oils                                                                     | 74869-22-0 | 278-012-2 | 01-2119495601-36-xxxx |

## 15.2. Chemical Safety Assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

## SECTION 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

Repr.-Reproduction toxicity  
 Asp. Tox. - Aspiration Toxicity  
 Acute Tox. - Acute Toxicity  
 Aquatic Acute - Acute Aquatic Toxicity  
 Aquatic Chronic - Chronic Aquatic Toxicity  
 Eye Dam. - Eye Damage  
 Eye Irrit. - Eye Irritation  
 Skin Corr. - Skin Corrosion  
 Skin Irrit. - Skin Irritation  
 Skin Sens. - Skin Sensitizer  
 Resp. Sens. - Respiratory Sensitizer  
 STOT SE - Specific target organ systemic toxicity (Single exposure)  
 STOT RE - Specific target organ systemic toxicity (repeated exposure)  
 VOC - Volatile organic compounds

### Full text of H-Statements referred to under section 3

H304 - May be fatal if swallowed and enters airways  
 H413 - May cause long lasting harmful effects to aquatic life  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H411 - Toxic to aquatic life with long lasting effects  
 H317 - May cause an allergic skin reaction  
 H412 - Harmful to aquatic life with long lasting effects  
 EUH066 - Repeated exposure may cause skin dryness or cracking

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)

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Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]**

|                              |                       |
|------------------------------|-----------------------|
| <b>Physical hazards</b>      | On basis of test data |
| <b>Health Hazards</b>        | Calculation Method    |
| <b>Environmental Hazards</b> | Calculation Method    |

**Revision Date** 01-13-2022

**Revision Note** This SDS has been revised in the following section(s), 8, 9, 11, 12, 15.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.