# SAFETY DATA SHEET

## Q8 LHM+

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

### 1.1 Product identifier

**Product name** : Q8 LHM+

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

**Material uses** : Lubricating oil for hydraulic equipment

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

**Supplier** : Kuwait Petroleum Companies in the Benelux
Company Office: Brusselstraat 59, 2018 Antwerp, Belgium
Contactaddress: Petroleumkaai 7, 2020 Antwerp, Belgium
Tel. +32 3 247 38 11, Fax +32 3 216 03 42

**Manufacturer / Distributor** : Kuwait Petroleum Belgium N.V./S.A.
Petroleumkaai 7
B-2020 Antwerp
Belgium

/ Q8Oils Italia S.r.l.
Via Volpedo 2
15050 Castellar Guidobono (AL)
Italy

**e-mail address of person responsible for this SDS** : SDSinfo@Q8.com, communication preferably in English only.

**PCN Information contact** : PCNinfo@Q8.com, communication preferably in English only.

### 1.4 Emergency telephone number

**Europe** : +44 (0) 1235 239 670

CARECHEM24

**Global (English only)** : +44 (0) 1865 407 333

**National advisory body/Poison Center**

**Belgium** : Poison Centre : +32 (0)70 245 245

## 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]**

| | | |
|---|---|---|
| ASPIRATION HAZARD | Category 1 | H304 |
| AQUATIC HAZARD (LONG-TERM) | Category 3 | H412 |

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** : None.

**Ingredients of unknown ecotoxicity** : None.

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

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

### 2.2 Label elements

**Hazard pictograms** :

## SECTION 2: Hazards identification

**Signal word** : Danger

**Hazard statements** : H304 - May be fatal if swallowed and enters airways.
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**General** : P103 - Read label before use.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

**Prevention** : P273 - Avoid release to the environment.

**Response** : P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Storage** : P405 - Store locked up.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Distillates (petroleum), hydrotreated light paraffinic
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
Gas oils (petroleum), hydrodesulfurized

**Supplemental label elements** : Contains (4-nonylphenoxy)acetic acid. May produce an allergic reaction.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Detergents - Regulation (EC) No 648/2004** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Yes, applicable.

**Tactile warning of danger** : Yes, 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.

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|---|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | REACH #: 01-2119487077-29<br>EC: 265-158-7<br>CAS: 64742-55-8 | ≥50 - ≤75 | Asp. Tox. 1, H304 | - | [1] [2] |
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | REACH #: 01-2119826592-36<br>EC: 934-954-2 | ≥50 - ≤75 | Asp. Tox. 1, H304 | - | [1] [2] |
| Gas oils (petroleum), hydrodesulfurized | REACH #: 01-2119471311-49 | ≤10 | Acute Tox. 4, H332<br>Skin Irrit. 2, H315 | ATE [Inhalation (gases)] = 4500 | [1] |

## SECTION 3: Composition/information on ingredients

| | | | | | |
|---|---|---|---|---|---|
| | EC: 265-182-8<br>CAS: 64742-79-6<br>Index: 649-222-00-5 | | Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 | ppm | |
| 2,6-di-tert-butylphenol | REACH #: 01-2119490822-33<br>EC: 204-884-0<br>CAS: 128-39-2 | ≤1 | Skin Irrit. 2, H315<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | M [Acute] = 1<br>M [Chronic] = 1 | [1] |
| tris(methylphenyl) phosphate | REACH #: 01-2119531335-46<br>EC: 215-548-8<br>CAS: 1330-78-5 | ≤1 | Repr. 2, H361<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | M [Acute] = 10<br>M [Chronic] = 100 | [1] |
| (4-nonylphenoxy)acetic acid | REACH #: 01-2119982392-31<br>EC: 221-486-2<br>CAS: 3115-49-9 | ≤1 | Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | ATE [Oral] = 500 mg/kg<br>M [Acute] = 1<br>M [Chronic] = 1 | [1] |
| Phenol, dodecyl-, branched | REACH #: 01-2119513207-49<br>EC: 310-154-3<br>CAS: 121158-58-5<br>Index: 604-092-00-9 | ≤0.1 | Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Repr. 1B, H360F<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | M [Acute] = 10<br>M [Chronic] = 10 | [1] [3] |
| naphthalene | REACH #: 01-2119561346-37<br>EC: 202-049-5<br>CAS: 91-20-3<br>Index: 601-052-00-2 | ≤0.1 | Flam. Sol. 2, H228<br>Acute Tox. 4, H302<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Carc. 2, H351<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>**See Section 16 for the full text of the H statements declared above.** | ATE [Oral] = 490 mg/kg<br>M [Acute] = 1<br>M [Chronic] = 1 | [1] [2] |

The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note L.

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.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance of equivalent concern

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. Continue to rinse for at least 10 minutes. Get medical attention.

## SECTION 4: First aid measures

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. High pressure skin injections are serious medical emergencies. Injury will not appear serious at first. Within a few hours, tissue will become swollen, discolored and extremely painful.

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 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** : Adverse symptoms may include the following:
irritation
dryness
cracking

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

### 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, $CO_2$, alcohol-resistant foam or water spray (fog).

**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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## SECTION 5: Firefighting measures

**Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur 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 European standard 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized 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 spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

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

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Contaminated absorbent material may pose the same hazard as the spilled product.

**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

## SECTION 7: Handling and storage

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**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. Store locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

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

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | **Limit values (Belgium, 12/2020).**<br>TWA: 5 mg/m³ 8 hours. Form: mist<br>STEL: 10 mg/m³ 15 minutes. Form: mist<br>**EU OEL (Europe).**<br>TWA: 5 mg/m³ 8 hours.<br>STEL: 10 mg/m³ 15 minutes. |
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | **EU OEL (Europe).**<br>TWA: 5 mg/m³ 8 hours.<br>STEL: 10 mg/m³ 15 minutes. |
| naphthalene | **Limit values (Belgium, 5/2021). Absorbed through skin.**<br>TWA: 10 ppm 8 hours.<br>TWA: 53 mg/m³ 8 hours.<br>STEL: 15 ppm 15 minutes.<br>STEL: 80 mg/m³ 15 minutes.<br>**EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values**<br>TWA: 10 ppm 8 hours.<br>TWA: 50 mg/m³ 8 hours. |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment

## SECTION 8: Exposure controls/personal protection

of exposure to chemical and biological agents) European Standard 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.

### DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|---|---|---|---|---|
| 2,6-di-tert-butylphenol | DNEL | Long term Oral | 6.75 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 11.25 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 20.9 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 70.61 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 6.75 mg/kg bw/day | General population | Systemic |
| tris(methylphenyl) phosphate | DNEL | Long term Oral | 0.02 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.03 mg/m³ | General population | Systemic |
| | DNEL | Long term Dermal | 0.15 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.18 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 0.41 mg/kg bw/day | Workers | Systemic |
| (4-nonylphenoxy)acetic acid | DNEL | Long term Oral | 0.25 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.25 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.43 mg/m³ | General population | Systemic |
| | DNEL | Long term Dermal | 0.5 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 1.76 mg/m³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 4.3 mg/m³ | General population | Systemic |
| | DNEL | Short term Inhalation | 17.6 mg/m³ | Workers | Systemic |
| Phenol, dodecyl-, branched | DNEL | Long term Oral | 0.075 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.075 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.25 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 0.79 mg/m³ | General population | Systemic |
| | DNEL | Short term Oral | 1.26 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Inhalation | 13.26 mg/m³ | General population | Systemic |
| | DNEL | Short term Inhalation | 44.18 mg/m³ | Workers | Systemic |
| | DNEL | Short term Dermal | 50 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 166 mg/kg bw/day | Workers | Systemic |
| naphthalene | DNEL | Long term Dermal | 3.57 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term | 25 mg/m³ | Workers | Local |

## SECTION 8: Exposure controls/personal protection

| | | | | | |
|---|---|---|---|---|---|
| | DNEL | Inhalation<br>Long term<br>Inhalation | 25 mg/m³ | Workers | Systemic |

**PNECs**

No PNECs available.

### 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** : Do not ingest. If swallowed then seek immediate medical assistance. 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** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Wear suitable gloves tested to EN374. Recommended: < 1 hour (breakthrough time): nitrile rubber 0.17 mm. Provide employee with skin care programmes.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Boiling point > 65 °C: A1; Boiling point < 65 °C: AX1; Hot material: A1P2.

**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 and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** : Liquid. [Oily liquid.]

**Appearance** : Clear.

**Color** : Green.

## SECTION 9: Physical and chemical properties

**Odor** : Characteristic.

**Odor threshold** : Not available.

**Melting point/freezing point** : Not applicable.

**Pour point** : -50°C (-58°F) [ASTM D 97]

**Initial boiling point and boiling range** : >270°C (>518°F)

**Flammability** : Not applicable.

**Lower and upper explosion limit** : Lower: 0.5%
Upper: 5%

**Flash point** : Open cup: 125°C (257°F) [ASTM D 92]

**Auto-ignition temperature** : >215°C (>419°F)

**Decomposition temperature** : >215°C

**pH** : Not applicable.

**Viscosity** : Kinematic (40°C (104°F)): 18.7 $mm^2/s$ (18.7 cSt) [ASTM D 445]
Kinematic (100°C (212°F)): 6.15 $mm^2/s$ (6.15 cSt) [ASTM D 445]

**Solubility(ies)** :

| Media | Result |
|---|---|
| cold water | Not soluble |
| hot water | Not soluble |

**Partition coefficient: n-octanol/water** : Not applicable.

**Vapor pressure** : <0.01 kPa (<0.075006 mm Hg)

**Density** : 0.84 g/$cm^3$ [15°C (59°F)] [ASTM D 4052]

**Vapor density** : Not available.

**Explosive properties** : Not applicable.

**Oxidizing properties** : Not applicable.

**Particle characteristics**

**Median particle size** : Not applicable.

### 9.2 Other information

Not available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : No specific data.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:
Strong oxidizing materials

**10.6 Hazardous decomposition products** : 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/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | LC50 Inhalation Dusts and mists | Rat | 3900 mg/m³ | 4 hours |
| | LD50 Dermal | Rabbit - Male, Female | >5000 mg/kg | - |
| | LD50 Oral | Rat - Male, Female | >5000 mg/kg | - |
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | LC50 Inhalation Vapor | Rat | >5266 mg/m³ | 4 hours |
| | LD50 Dermal | Rabbit | >3160 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Gas oils (petroleum), hydrodesulfurized | LC50 Inhalation Vapor | Rat - Male, Female | 4.6 mg/l | 4 hours |
| | LD50 Dermal | Rabbit - Male, Female | >2000 mg/kg | - |
| | LD50 Oral | Rat - Male, Female | >5000 mg/kg | - |
| 2,6-di-tert-butylphenol | LD50 Dermal | Rabbit | >10 g/kg | - |
| | LD50 Oral | Rat | 1320 mg/kg | - |
| tris(methylphenyl) phosphate | LD50 Dermal | Rabbit | >10000 mg/kg | - |
| | LD50 Oral | Rat | 3 g/kg | - |
| naphthalene | LD50 Dermal | Rabbit | >20 g/kg | - |
| | LD50 Oral | Rat | 490 mg/kg | - |

**Conclusion/Summary** : Not available.

### Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| Gas oils (petroleum), hydrodesulfurized | N/A | N/A | 4500 | N/A | N/A |
| tris(methylphenyl) phosphate | 3000 | N/A | N/A | N/A | N/A |
| (4-nonylphenoxy)acetic acid | 500 | N/A | N/A | N/A | N/A |
| naphthalene | 490 | N/A | N/A | N/A | N/A |

### Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | Eyes - Iris lesion | Rabbit | 0 | 48 hours | 72 hours |
| | Eyes - Redness of the conjunctivae | Rabbit | 0.33 | 48 hours | 72 hours |
| | Skin - Edema | Rabbit | 0 | 72 hours | 7 days |
| | Skin - Erythema/Eschar | Rabbit | 0.17 | 72 hours | 7 days |
| Gas oils (petroleum), hydrodesulfurized | Eyes - Irritant | Rabbit | - | - | - |
| | Skin - Edema | Rabbit | 1.9 | - | - |
| 2,6-di-tert-butylphenol | Skin - Moderate irritant | Rat | - | 0.5 Ml | - |
| tris(methylphenyl) phosphate | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| naphthalene | Skin - Mild irritant | Rabbit | - | 495 mg | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 0.05 Ml | - |

**Conclusion/Summary** : Not available.

### Sensitization

## SECTION 11: Toxicological information

| Product/ingredient name | Route of exposure | Species | Result |
|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | skin | Guinea pig | Not sensitizing |

**Conclusion/Summary** : Not available.

**Mutagenicity**

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | 474 Mammalian Erythrocyte Micronucleus Test | Experiment: In vivo<br>Subject: Mammalian-Animal<br>Cell: Somatic | Negative |
| Gas oils (petroleum), hydrodesulfurized | 471 Bacterial Reverse Mutation Test | Experiment: In vitro<br>Subject: Bacteria | Positive |
| | 475 Mammalian Bone Marrow Chromosomal Aberration Test | Experiment: In vivo<br>Subject: Mammalian-Animal<br>Cell: Germ, Somatic | Negative |

**Conclusion/Summary** : Not available.

**Carcinogenicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | Negative - Dermal - TC | Mouse - Female | - | 78 weeks |
| Gas oils (petroleum), hydrodesulfurized | Positive - Dermal - TCLo | Mouse - Male | - | - |

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

| Product/ingredient name | Maternal toxicity | Fertility | Development toxin | Species | Dose | Exposure |
|---|---|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | Negative | Negative | Negative | Rat - Male, Female | Oral: 1000 mg/kg | - |
| Gas oils (petroleum), hydrodesulfurized | Positive | Negative | Positive | Rabbit - Female | Dermal | - |

**Conclusion/Summary** : Not available.

**Teratogenicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | Negative - Dermal | Rat | 2000 mg/kg | 7 days per week |
| Gas oils (petroleum), hydrodesulfurized | Positive - Dermal | Rat - Male, Female | - | - |

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

| Product/ingredient name | Result |
|---|---|
| Q8 LHM+ | ASPIRATION HAZARD - Category 1 |
| Distillates (petroleum), hydrotreated light paraffinic | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | ASPIRATION HAZARD - Category 1 |
| Gas oils (petroleum), hydrodesulfurized | ASPIRATION HAZARD - Category 1 |

# SECTION 11: Toxicological information

**Information on the likely routes of exposure** : Not available.

## 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** : May be fatal if swallowed and enters airways.

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

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

## Delayed and immediate effects and also 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

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | Sub-acute LOAEL Oral | Rat - Male | 125 mg/kg | 13 weeks; 5 hours per day |
| | Sub-chronic NOAEL Oral | Rat - Male, Female | ≥2000 mg/kg | 13 weeks; 5 days per week |
| | Sub-acute NOAEL Inhalation Dusts and mists | Rat - Male | >980 mg/m³ | 4 weeks; 5 days per week |
| Gas oils (petroleum), hydrodesulfurized | Chronic LOEL Inhalation Vapor | Rat - Male, Female | 23 mg/m³ | 6 hours; 5 days per week |
| | Chronic NOAEL Dermal | Rabbit - Male, Female | 1000 mg/kg | - |

**Conclusion/Summary** : Not available.

**General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

### 11.2.2 Other information

## SECTION 11: Toxicological information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | Acute EC50 >3193 mg/l | Daphnia | 48 hours |
| | Acute IC50 >10000 mg/l | Algae | 72 hours |
| | Acute LC50 >1000 mg/l | Fish | 96 hours |
| Gas oils (petroleum), hydrodesulfurized | Acute LC50 65 mg/l Fresh water | Fish | 96 hours |
| | Chronic NOEC 0.163 mg/l Fresh water | Daphnia | 21 days |
| | Chronic NOEC 0.069 mg/l Fresh water | Fish | 14 days |
| tris(methylphenyl) phosphate | Acute EC50 290 µg/l Fresh water | Algae - Stephanodiscus hantzschii - Exponential growth phase | 96 hours |
| | Acute EC50 170 µg/l Fresh water | Fish - Gasterosteus aculeatus | 96 hours |
| | Acute LC50 0.09 mg/l Fresh water | Daphnia - Daphnia magna - Instar | 48 hours |
| | Chronic NOEC 0.32 µg/l Fresh water | Fish - Gasterosteus aculeatus - Egg | 35 days |
| naphthalene | Acute EC50 1.6 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 2350 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 213 µg/l Fresh water | Fish - Melanotaenia fluviatilis - Larvae | 96 hours |
| | Chronic NOEC 0.5 mg/l Marine water | Crustaceans - Uca pugnax - Adult | 3 weeks |
| | Chronic NOEC 1.5 mg/l Fresh water | Fish - Oreochromis mossambicus | 60 days |

**Conclusion/Summary** : Harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | - | 74 % - 28 days | - | - |

**Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | - | - | Inherent |
| Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics | - | - | Readily |

### 12.3 Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Distillates (petroleum), hydrotreated light paraffinic | >3 | - | low |
| 2,6-di-tert-butylphenol | 4.5 | - | high |
| tris(methylphenyl) phosphate | 5.93 | 794.33 | high |
| Phenol, dodecyl-, branched | 6.1 | 1601 | high |
| naphthalene | 3.4 | 36.5 to 168 | low |

## SECTION 12: Ecological information

### 12.4 Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6 Endocrine disrupting properties

Not available.

### 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**

**Methods of disposal** : The generation of waste should be avoided or minimized 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.

**European waste catalogue (EWC)**

| Waste code | Waste designation |
|---|---|
| 13 01 10* | mineral based non-chlorinated hydraulic oils |

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimized 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number or ID number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| | | | | |

## SECTION 14: Transport information

| | | | | |
|---|---|---|---|---|
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | 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

#### EU Regulation (EC) No. 1907/2006 (REACH)

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

###### Annex XIV

None of the components are listed.

##### Substances of very high concern

| Intrinsic property | Ingredient name | Status | Reference number | Date of revision |
|---|---|---|---|---|
| Toxic to reproduction | phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof | Candidate | D(2021) 4569-DC | 08-07-2021 |
| Endocrine disrupting properties for human health | phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof | Candidate | D(2021) 4569-DC | 08-07-2021 |
| Endocrine disrupting properties for environment | phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof | Candidate | D(2021) 4569-DC | 08-07-2021 |

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Other EU regulations

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

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

#### Ozone depleting substances (1005/2009/EU)

## SECTION 15: Regulatory information

Not listed.

### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

### Persistent Organic Pollutants

Not listed.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|---|---|---|---|---|
| naphthalene | Belgium Carcinogen chemicals | polyzyklische aromatische Kohlenwasserstoffen | Carc. | - |

### Germany

**Hazard class for water (WGK)** : 1

### Switzerland

**VOC content** : Exempt.

### 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

**Australia** : All components are listed or exempted.

**Canada** : All components are listed or exempted.

**China** : Not determined.

**Eurasian Economic Union** : **Russian Federation inventory**: Not determined.

**Japan** : **Japan inventory (CSCL)**: Not determined.
**Japan inventory (ISHL)**: Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : Not determined.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States of America** : Not determined.

**Viet Nam** : Not determined.

**15.2 Chemical Safety Assessment** : Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM = American Society for Testing and Materials
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DIN = German Institute for Standardization
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EC = European Commission
EC50 = Half maximal effective concentration
EN = European Standard (Norm)
EUH statement = CLP-specific Hazard statement
GHS - Globally Harmonized System of Classification and Labeling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IC50 = Half maximal inhibitory concentration
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organisation
ISO = International Organization for Standardization
LC50 = Median lethal concentration
LD50 = Median lethal dose
LOAEL / LOAEC = Lowest Observed Adverse Effect Level / Concentration
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
NOAEL / NOAEC = No Observed Adverse Effect Level / Concentration
NOEL / NOEC = No Observed Effect Level / Concentration
OECD = Organisation for Economic Co-operation and Development
OEL = Occupational Exposure Limit
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS = Safety Data Sheet
SVHC = Substances of Very High Concern
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value
TWA = Time Weighted Average
UFI = Unique Formula Identifier
UN = United Nations
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

| Classification | Justification |
|---|---|
| Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412 | Expert judgment<br>Expert judgment |

## SECTION 16: Other information

The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note L.

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

**Full text of abbreviated H statements**

| | |
|---|---|
| H228 | Flammable solid. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H351 | Suspected of causing cancer. |
| H360F | May damage fertility. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Full text of classifications [CLP/GHS]**

| | |
|---|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Acute 1 | AQUATIC HAZARD (ACUTE) - Category 1 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |
| Aquatic Chronic 2 | AQUATIC HAZARD (LONG-TERM) - Category 2 |
| Aquatic Chronic 3 | AQUATIC HAZARD (LONG-TERM) - Category 3 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Carc. 2 | CARCINOGENICITY - Category 2 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Flam. Sol. 2 | FLAMMABLE SOLIDS - Category 2 |
| Repr. 1B | TOXIC TO REPRODUCTION - Category 1B |
| Repr. 2 | TOXIC TO REPRODUCTION - Category 2 |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Corr. 1C | SKIN CORROSION/IRRITATION - Category 1C |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITIZATION - Category 1 |

**Training advice** : Ensure operatives are trained to minimise exposures.

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**Notice to reader**

**The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.**