

# SAFETY DATA SHEET

## Q8 HVO Diesel



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

#### 1.1 Product identifier

**Product name** : Q8 HVO Diesel  
**Viscosity or Type** : Q8 Biodiesel HVO 100, Q8 Biodiesel HVO 100 F, IDS Truck Biodiesel HVO100  
**EC number** : 618-882-6  
**REACH Registration number**

| Registration number | Legal entity |
|---------------------|--------------|
| 01-2119450077-42    | -            |

**CAS number** : 928771-01-1

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

**Material uses** : Motor fuels.

| Identified uses   |
|---|
| Distribution of substance - Industrial<br>Formulation and (re)packing of substances and mixtures - Industrial (Formulation)<br>Formulation and (re)packing of substances and mixtures - Industrial<br>Use in fuel - Industrial<br>Use in fuel - Professional<br>Use in fuel - Consumer<br>Use as an intermediate - Industrial |

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

**Manufacturer / Distributor** : Q8 Danmark A/S  
Arne Jacobsens Allé 7  
2300 København S,  
Danmark  
Tel. 7012 4545, Fax 4599 2020  
Email: produktteknik@Q8.dk, Web: www.Q8.dk

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

#### 1.4 Emergency telephone number

**Denmark** : +45 8988 2286  
**Europe** : +44 (0) 1235 239 670  
**Global (English only)** : +44 (0) 1865 407 333



### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : UVCB

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

ASPIRATION HAZARD

Category 1

H304

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

**Ingredients of unknown toxicity** : None.

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## SECTION 2: Hazards identification

**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** :



**Signal word** : Danger

**Hazard statements** : H304 - May be fatal if swallowed and enters airways.

#### 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** : Not applicable.

**Response** : P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. 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** : Renewable hydrocarbons (diesel type fraction)

**Supplemental label elements** : Repeated exposure may cause skin dryness or cracking.

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

| PBT | P   | B   | T  | vPvB | vP  | vB  |
|-----|-----|-----|----|------|-----|-----|
| No  | N/A | N/A | No | N/A  | N/A | N/A |

**Other hazards which do not result in classification** : None known.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances : UVCB

| Product/ingredient name                       | Identifiers   | %   | Regulation (EC) No. 1272/2008 [CLP]  | Type | Notes |
|---|---|-----|--|------|-------|
| Renewable hydrocarbons (diesel type fraction) | REACH #:<br>01-2119450077-42<br>EC: 618-882-6<br>CAS: 928771-01-1 | 100 | Asp. Tox. 1, H304<br>EUH066<br><br><b>See Section 16 for the full text of the H statements declared above.</b> | [A]  | -     |

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

#### Type

[A] Constituent

[B] Impurity

[C] Stabilizing additive

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.
- 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.
- 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

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## SECTION 4: First aid measures

### 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** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- 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.
- Hazardous combustion products** : No specific data.

### 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).

### 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.

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## SECTION 6: Accidental release measures

- 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

- 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. 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 list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

| Product/ingredient name                       | Exposure limit values  |
|---|--|
| Renewable hydrocarbons (diesel type fraction) | <b>EU OEL (Europe).</b><br>TWA: 5 mg/m <sup>3</sup> , (oil Mist) |

- 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 of exposure to chemical and biological agents) European Standard EN 482

## SECTION 8: Exposure controls/personal protection

(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

No DNELs/DMELs available.

### 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

: 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: 4 - 8 hours (breakthrough time): nitrile rubber neoprene PVC

#### 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

|  |  |
|--|--|
| Physical state                               | : Liquid. [Clear.]   |
| Appearance                                   | : Oily liquid.   |
| Color  | : Colorless.   |
| Odor   | : Characteristic. [Slight]   |
| Odor threshold                               | : Not available.   |
| pH   | : Not available.   |
| Melting point/freezing point                 | : <-20°C   |
| Initial boiling point and boiling range      | : 180 to 320°C   |
| Flash point                                  | : Closed cup: >61°C [Pensky-Martens]   |
| Evaporation rate                             | : Not available.   |
| Flammability (solid, gas)                    | : Not applicable.  |
| Upper/lower flammability or explosive limits | : Not available.   |
| Vapor pressure                               | : Not available.   |
| Vapor density                                | : Not available.   |
| Density                                      | : 0.78 g/cm <sup>3</sup> [15.6°C]  |
| Solubility(ies)                              | : Soluble in the following materials: methanol.<br>Insoluble in the following materials: cold water and hot water. |
| Dispersibility properties                    | : Not dispersible in the following materials: cold water and hot water.  |
| Partition coefficient: n-octanol/ water      | : Not available.   |
| Auto-ignition temperature                    | : 204°C  |
| Decomposition temperature                    | : Not available.   |
| Viscosity (40°C)                             | : Not available.   |
| Explosive properties                         | : Not applicable.  |
| Oxidizing properties                         | : Not applicable.  |

### 9.2 Other information

## 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:<br>Strong oxidizing materials                 |
| 10.6 Hazardous decomposition products   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |



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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                       | Result      | Species | Dose        | Exposure |
|---|-------------|---------|-------------|----------|
| Renewable hydrocarbons (diesel type fraction) | LD50 Dermal | Rat     | >2000 mg/kg | -        |
|   | LD50 Oral   | Rat     | >2000 mg/kg | -        |

**Conclusion/Summary** : Not toxic.

#### Acute toxicity estimates

N/A

#### Irritation/Corrosion

##### **Conclusion/Summary**

**Skin** : Non-irritant to skin.

**Eyes** : Non-irritating to the eyes.

**Respiratory** : Non-irritant to lungs.

#### Sensitization

##### **Conclusion/Summary**

**Skin** : Not sensitizing

**Respiratory** : Not classified for respiratory sensitization.

#### Mutagenicity

**Conclusion/Summary** : No mutagenic effect.

#### Carcinogenicity

**Conclusion/Summary** : No carcinogenic effect.

#### Reproductive toxicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Teratogenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

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

Not available.

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

Not available.

#### Aspiration hazard

| Product/ingredient name                       | Result                         |
|---|--------------------------------|
| Renewable hydrocarbons (diesel type fraction) | ASPIRATION HAZARD - Category 1 |

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

**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.



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## SECTION 11: Toxicological information

- 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

Not available.

- Conclusion/Summary** : Not toxic.
- 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.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name                       | Result               | Species | Exposure |
|---|----------------------|---------|----------|
| Renewable hydrocarbons (diesel type fraction) | Acute EC50 >100 mg/l | Algae   | 72 hours |
|   | Acute EC50 >100 mg/l | Daphnia | 48 hours |
|   | Acute EC50 >100 mg/l | Fish    | 96 hours |

**Conclusion/Summary** : non-toxic.

### 12.2 Persistence and degradability

| Product/ingredient name                       | Test  | Result                     | Dose | Inoculum |
|---|---|----------------------------|------|----------|
| Renewable hydrocarbons (diesel type fraction) | OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test | >60 % - Inherent - 28 days | -    | -        |

**Conclusion/Summary** : Not available.

| Product/ingredient name                       | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| Renewable hydrocarbons (diesel type fraction) | -                 | -          | Inherent         |

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## SECTION 12: Ecological information

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

Soil/water partition coefficient ( $K_{oc}$ ) : >6.5

Mobility : Not available.

### 12.5 Results of PBT and vPvB assessment

| Product/ingredient name                       | PBT | P   | B   | T  | vPvB | vP  | vB  |
|---|-----|-----|-----|----|------|-----|-----|
| Renewable hydrocarbons (diesel type fraction) | No  | N/A | N/A | No | N/A  | N/A | N/A |

12.6 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 07 01*  | fuel oil and diesel |

#### 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                  | UN1202   | UN1202   | UN1202  | UN1202   |
| 14.2 UN proper shipping name    | DIESEL FUEL  | DIESEL FUEL  | DIESEL FUEL   | Diesel fuel  |
| 14.3 Transport hazard class(es) | 3<br> | 3<br> | 3<br> | 3<br> |

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## SECTION 14: Transport information

|                                   |     |     |     |     |
|-----------------------------------|-----|-----|-----|-----|
| <b>14.4 Packing group</b>         | III | III | III | III |
| <b>14.5 Environmental hazards</b> | No. | No. | No. | No. |

### Additional information

- ADR/RID** : **Hazard identification number** 30  
**Limited quantity** 5 L  
**Special provisions** 640L, 664  
**Tunnel code** (D/E)
- ADN** : **Special provisions** 640L
- IMDG** : **Emergency schedules** F-E, S-E
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.  
**Special provisions** A3

**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 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

None of the components are listed.

**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)

Not listed.

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

Not listed.

## SECTION 15: Regulatory information

### Seveso Directive

This product is not controlled under the Seveso Directive.

### National regulations

**Product registration number** : 4361680

**Danish fire class** : III-1

**MAL-code** : 00-3

**Protection based on MAL** : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

**General:** Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 00-3

**Application:** During downtimes, cleaning and repair of closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing\* facility type, if the operator is inside the spray zone.

- Coveralls must be worn.

When spraying in existing\* spray booths, if the operator is outside the spray zone.

- Arm protectors and apron must be worn.

During all spraying where atomization occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, coveralls and hood must be worn.

**Drying:** Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc. must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

**Polishing:** When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

**Caution** The regulations contain other stipulations in addition to the above.

\*See Regulations.

**Restrictions on use** : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.

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

**VOC content** : Exempt.

### International regulations

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## SECTION 15: Regulatory information

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

Not listed.

### Montreal Protocol

Not listed.

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

|                          |  |
|--------------------------|--|
| <b>Australia</b>         | : This material is listed or exempted.   |
| <b>Canada</b>            | : This material is listed or exempted.   |
| <b>China</b>             | : Not determined.  |
| <b>Europe</b>            | : This material is listed or exempted.   |
| <b>Japan</b>             | : <b>Japan inventory (CSCL):</b> Not determined.<br><b>Japan inventory (ISHL):</b> Not determined. |
| <b>New Zealand</b>       | : Not determined.  |
| <b>Philippines</b>       | : Not determined.  |
| <b>Republic of Korea</b> | : Not determined.  |
| <b>Taiwan</b>            | : This material is listed or exempted.   |
| <b>Thailand</b>          | : Not determined.  |
| <b>Turkey</b>            | : Not determined.  |
| <b>United States</b>     | : This material is active or exempted.   |
| <b>Viet Nam</b>          | : Not determined.  |

**15.2 Chemical Safety Assessment** : Complete.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
SGG = Segregation Group  
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 | Expert judgment |

### Full text of abbreviated H statements

|        |   |
|--------|---|
| H304   | May be fatal if swallowed and enters airways.         |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Q8 HVO Diesel

## SECTION 16: Other information

### [Full text of classifications \[CLP/GHS\]](#)

Asp. Tox. 1                      ASPIRATION HAZARD - Category 1

**Training advice**                      : Ensure operatives are trained to minimise exposures.  
**Date of printing**                      : 10-02-2021  
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**Date of previous issue**                      : 18-06-2020  
**Version**                                      : 1.05  
**Prepared by**                                : Kuwait Petroleum Research & Technology B.V., The Netherlands

### [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.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

**Product definition** : UVCB  
**Product name** : Q8 HVO Diesel

### Section 1 - Title

**Short title of the exposure scenario** : Distribution of substance - Industrial  
**List of use descriptors** : **Identified use name:** Distribution of substance - Industrial  
**Process Category:** PROC02, PROC03, PROC08a, PROC08b, PROC15  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU08  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC01  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

**Processes and activities covered by the exposure scenario** : Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities.  
**Additional information** : See section 3.

### Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1:**  
 Bund storage facilities to prevent soil and water pollution in the event of spillage.

**Product characteristics** : Readily biodegradable  
 Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)  
 Vapor pressure: 5.1 Pa (Petrorisk)  
 Partition Coefficient (LogKow): 8.4

**Amounts used** : Regional use tonnage 8.0E5  
 Annual site tonnage 40

**Frequency and duration of use** : Emission days300

**Environment factors not influenced by risk management** : Local freshwater dilution factor 10  
 Local marine water dilution factor 100

**Other conditions affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM) 1.0E-5  
 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-7  
 Release fraction to soil from process (initial release prior to RMM)1.0E-5

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : Treat air emission to provide a typical removal efficiency of 90  
 Provide on-site wastewater treatment. >= 92.5

**Organizational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

**Conditions and measures related to sewage treatment plant** : Not applicable.



**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

#### Contributing scenario controlling worker exposure for 2:

General exposures (closed systems): Outdoor

Process sampling: Wear suitable gloves tested to EN374. Outdoor

Laboratory activities: Handle in a fume cupboard or under extract ventilation. Wear suitable gloves tested to EN374.

Bulk transfers (Closed system): Wear suitable gloves tested to EN374. Use vapor recovery units when necessary. Outdoor

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374. All waste product is assumed to be collected and returned for re-processing or use as a fuel.

Storage: Transfer via enclosed lines. Store substance within a closed system. Outdoor

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

**Conditions and measures related to personal protection, hygiene and health evaluation**

### Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

#### Exposure estimation and reference to its source - Environment: 1:

**Exposure assessment (environment):** : Not available.

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

#### Exposure estimation and reference to its source - Workers: 2:

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

### Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment**

: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

**Health**

: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

Product definition : UVCB  
 Product name : Q8 HVO Diesel

### Section 1 - Title

Short title of the exposure scenario : Formulation and (re)packing of substances and mixtures - Industrial (Formulation)

List of use descriptors : **Identified use name:** Formulation and (re)packing of substances and mixtures - Industrial (Formulation)  
**Process Category:** PROC02, PROC03, PROC08a, PROC08b, PROC15  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU10  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC02  
**Market sector by type of chemical product:** PC24  
**Article category related to subsequent service life:** Not applicable.

**Processes and activities covered by the exposure scenario** : Formulation of the substance and its mixtures in batch or continuous operations within closed or contained systems, including incidental exposures during storage, materials transfers, mixing, maintenance, sampling and associated laboratory activities.

**Additional information** : See section 3.

### Section 2 - Exposure controls

#### Contributing scenario controlling environmental exposure for 1:

Bund storage facilities to prevent soil and water pollution in the event of spillage.

**Product characteristics** : Readily biodegradable  
 Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)  
 Vapor pressure: 5.1 Pa (Petrorisk)  
 Partition Coefficient (LogKow): 8.4

**Amounts used** : Regional use tonnage 6.72E5  
 Annual site tonnage 30

**Frequency and duration of use** : Emission days300

**Environment factors not influenced by risk management** : Local freshwater dilution factor 10  
 Local marine water dilution factor 100

**Other conditions affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM) 2.5E-3  
 Release fraction to wastewater from process (initial release prior to RMM) 5.0E-6  
 Release fraction to soil from process (initial release prior to RMM)1.0E-4

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : Treat air emission to provide a typical removal efficiency of 90  
 Provide on-site wastewater treatment. >= 92.5

**Organizational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

**Conditions and measures related to sewage treatment plant** : Not applicable.

**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

**Contributing scenario controlling worker exposure for 2:**

General exposures (closed systems) With sample collection: No specific measures identified.

Mixing operations: Transfer via enclosed lines. Outdoor

Process sampling: Wear suitable gloves tested to EN374. Outdoor

Laboratory activities: Handle in a fume cupboard or under extract ventilation. Wear suitable gloves tested to EN374.

Bulk transfers (Closed system): Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374. All waste product is assumed to be collected and returned for re-processing or use as a fuel.

Storage: Store substance within a closed system. Transfer via enclosed lines. Outdoor

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Section 3 - Exposure estimation and reference to its source**

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1:**

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

**Exposure estimation and reference to its source - Workers: 2:**

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

**Environment**

: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

**Health**

: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

**Product definition** : UVCB  
**Product name** : Q8 HVO Diesel

### Section 1 - Title

**Short title of the exposure scenario** : Formulation and (re)packing of substances and mixtures - Industrial

**List of use descriptors** : **Identified use name:** Formulation and (re)packing of substances and mixtures - Industrial  
**Process Category:** PROC01, PROC03, PROC08a, PROC08b, PROC09, PROC15  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU10  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC07  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

**Processes and activities covered by the exposure scenario** : Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

**Additional information** : See section 3.

### Section 2 - Exposure controls

#### Contributing scenario controlling environmental exposure for 1:

Bund storage facilities to prevent soil and water pollution in the event of spillage.

**Product characteristics** : Readily biodegradable  
Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)  
Vapor pressure: 5.1 Pa (Petrorisk)  
Partition Coefficient (LogKow): 8.4

**Amounts used** : Regional use tonnage 4.0E4  
Annual site tonnage 4.0E3

**Frequency and duration of use** : Emission days300

**Environment factors not influenced by risk management** : Local freshwater dilution factor 10  
Local marine water dilution factor 100

**Other conditions affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM) 2.5E-3  
Release fraction to wastewater from process (initial release prior to RMM) 5.0E-6  
Release fraction to soil from process (initial release prior to RMM)1.0E-4

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : Treat air emission to provide a typical removal efficiency of 90  
Total efficiency of removal from wastewater after on-site and off-site (municipal treatment plant) RMMs 92.5

**Organizational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

**Conditions and measures related to sewage treatment plant** : Assumed on-site sewage treatment plant flow 2000  
Estimated substance removal from wastewater via on-site sewage treatment 92.5

**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

### Contributing scenario controlling worker exposure for 2:

Process sampling: Wear suitable gloves tested to EN374.

Laboratory activities: Handle in a fume cupboard or under extract ventilation. Wear suitable gloves tested to EN374.

Bulk transfers (Closed system) Transfer via enclosed lines.: Ensure material transfers are under containment or extract ventilation. Wear suitable gloves tested to EN374.

Drum/batch transfers: Wear suitable gloves tested to EN374.

Drum and small package filling : Fill containers/cans at dedicated fill points supplied with local extract ventilation. Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Storage: Store substance within a closed system. Transfer via enclosed lines. Store finished products in closed containers (e.g., bulk tanks, drums, cans).

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

### Conditions and measures related to personal protection, hygiene and health evaluation

## Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

### Exposure estimation and reference to its source - Environment: 1:

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

### Exposure estimation and reference to its source - Workers: 2:

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES



**Environment**

: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

**Health**

: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

Product definition : UVCB  
 Product name : Q8 HVO Diesel

### Section 1 - Title

Short title of the exposure scenario : Use in fuel - Industrial  
 List of use descriptors : **Identified use name:** Use in fuel - Industrial  
**Process Category:** PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC15, PROC16  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU03  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC07  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

**Processes and activities covered by the exposure scenario** : Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.  
**Additional information** : See section 3.

### Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1:**  
 Bund storage facilities to prevent soil and water pollution in the event of spillage.

**Product characteristics** : Readily biodegradable  
 Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)  
 Vapor pressure: 5.1 Pa (Petrorisk)  
 Partition Coefficient (LogKow): 8.4

**Amounts used** : Regional use tonnage 45.7E4  
 Annual site tonnage 45.7E3

**Frequency and duration of use** : Emission days300

**Environment factors not influenced by risk management** : Local freshwater dilution factor 10  
 Local marine water dilution factor 100

**Other conditions affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM) 2.5E-4  
 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-5  
 Release fraction to soil from process (initial release prior to RMM)0

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : Treat air emission to provide a typical removal efficiency of 95  
 Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of 92.5

**Organizational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

**Conditions and measures related to sewage treatment plant** : Assumed on-site sewage treatment plant flow 2000  
 Estimated substance removal from wastewater via on-site sewage treatment 92.5

**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

**Contributing scenario controlling worker exposure for 2:**

General exposures (closed systems): No specific measures identified.

General exposures (closed systems) Continuous process (With sample collection): Ensure material transfers are under containment or extract ventilation.

Filling of equipment from drums or containers: Use drum pumps or carefully pour from container. Wear suitable gloves tested to EN374.

Vehicles Refuelling: Use vapor recovery units when necessary. Wear suitable gloves tested to EN374.

Bulk transfers Closed systems: Wear suitable gloves tested to EN374.

Process sampling: Wear suitable gloves tested to EN374.

Laboratory activities: Handle in a fume cupboard or under extract ventilation. Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Vessel and container cleaning: Wear suitable gloves tested to EN374. Wear suitable coveralls to prevent exposure to the skin. Drain down system prior to equipment break-in or maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle. Provide enhanced general ventilation by mechanical means. If above technical/organisational control measures are not feasible, then adopt following PPE Wear positive-pressure air-supplied respirator, if required by safe entry procedures.

Storage: Store substance within a closed system. Transfer via enclosed lines.

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Section 3 - Exposure estimation and reference to its source**

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1:**

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

**Exposure estimation and reference to its source - Workers: 2:**

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

|                    |   |
|--------------------|---|
| <b>Environment</b> | : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet. |
| <b>Health</b>      | : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.  |

## Annex to the extended Safety Data Sheet (eSDS)

Professional

### Identification of the substance or mixture

Product definition : UVCB  
 Product name : Q8 HVO Diesel

### Section 1 - Title

Short title of the exposure scenario : Use in fuel - Professional  
 List of use descriptors : **Identified use name:** Use in fuel - Professional  
**Process Category:** PROC01, PROC02, PROC08a, PROC08b, PROC16  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU22  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC08b, ERC08e  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

**Processes and activities covered by the exposure scenario** : Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.  
**Additional information** : See section 3.

### Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1:**  
 Not applicable.

**Product characteristics** : Readily biodegradable  
 Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)  
 Vapor pressure: 5.1 Pa (Petrorisk)  
 Partition Coefficient (LogKow): 8.4

**Amounts used** : Regional use tonnage 8.9E4  
 Annual site tonnage 4.45E3

**Frequency and duration of use** : Emission days 365

**Environment factors not influenced by risk management** : Local freshwater dilution factor 10  
 Local marine water dilution factor 100

**Other conditions affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM) 1.0E-4  
 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-5  
 Release fraction to soil from process (initial release prior to RMM) 1.0E-5

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : Not applicable.

**Organizational measures to prevent/limit release from site** : Not applicable.

**Conditions and measures related to sewage treatment plant** : Assumed on-site sewage treatment plant flow 2000  
 Estimated substance removal from wastewater via on-site sewage treatment 92.5

**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

#### **Contributing scenario controlling worker exposure for 2:**

Bulk transfers Heating oil and diesel deliveries: Handle substance within a closed system. Wear suitable gloves tested to EN374.

Filling of equipment from drums or containers: Use drum pumps or carefully pour from container. Wear suitable gloves tested to EN374.

Vehicles Refuelling: Use drum pumps or carefully pour from container. Wear suitable gloves tested to EN374. Use vapor recovery units when necessary.

General exposures (closed systems): No specific measures identified.

General exposures (open systems): No specific measures identified.

Equipment cleaning and maintenance: Drain down and flush system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Vessel and container cleaning: Drain down system prior to equipment break-in or maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle. Provide enhanced general ventilation by mechanical means. If above technical/organisational control measures are not feasible, then adopt following PPE Wear positive-pressure air-supplied respirator, if required by safe entry procedures. Wear suitable gloves tested to EN374. Wear suitable coveralls to prevent exposure to the skin.

Storage: Store substance within a closed system.

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

#### **Conditions and measures related to personal protection, hygiene and health evaluation**

### **Section 3 - Exposure estimation and reference to its source**

**Website:** : Not applicable.

#### **Exposure estimation and reference to its source - Environment: 1:**

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

#### **Exposure estimation and reference to its source - Workers: 2:**

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

|                    |   |
|--------------------|---|
| <b>Environment</b> | : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet. |
| <b>Health</b>      | : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.  |



## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

Product definition : UVCB  
Product name : Q8 HVO Diesel

### Section 1 - Title

Short title of the exposure scenario : Use as an intermediate - Industrial  
List of use descriptors : **Identified use name:** Use as an intermediate - Industrial  
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU08  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC06a  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

|  |   |
|--|---|
| <b>Processes and activities covered by the exposure scenario</b> | : Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container). |
| <b>Additional information</b>                                    | : See section 3.  |

### Section 2 - Exposure controls

|  |  |
|--|--|
| <b>Contributing scenario controlling environmental exposure for 1:</b>   |  |
| Bund storage facilities to prevent soil and water pollution in the event of spillage.                              |  |
| <b>Product characteristics</b>   | : Readily biodegradable<br>Solubility in water (25 °C): 1.4E-3 mg/l (Petrorisk)<br>Vapor pressure: 5.1 Pa (Petrorisk)<br>Partition Coefficient (LogKow): 8.4   |
| <b>Amounts used</b>  | : Regional use tonnage 80E3<br>Annual site tonnage 80E3  |
| <b>Frequency and duration of use</b>   | : Emission days300   |
| <b>Environment factors not influenced by risk management</b>   | : Local freshwater dilution factor 10<br>Local marine water dilution factor 100  |
| <b>Other conditions affecting environmental exposure</b>   | : Release fraction to air from process (initial release prior to RMM) 2.0E-5<br>Release fraction to wastewater from process (initial release prior to RMM) 1.0E-5<br>Release fraction to soil from process (initial release prior to RMM) 1.0E-3 |
| <b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil</b> | : Treat air emission to provide a typical removal efficiency of 80<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of 92.5   |
| <b>Organizational measures to prevent/limit release from site</b>  | : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.  |
| <b>Conditions and measures related to sewage treatment plant</b>   | : Assumed on-site sewage treatment plant flow 2000<br>Estimated substance removal from wastewater via on-site sewage treatment 92.5  |

**Conditions and measures related to external treatment of waste for disposal** : Dispose of waste in accordance with environmental legislation.

**Conditions and measures related to external recovery of waste** : Dispose of waste in accordance with environmental legislation.

#### **Contributing scenario controlling worker exposure for 2:**

General exposures (closed systems): No specific measures identified.

General exposures (closed systems) With sample collection: No specific measures identified.

General exposures (closed systems) Batch process: No specific measures identified.

General exposures (open systems) Batch process: Wear suitable gloves tested to EN374. Transfer via enclosed lines.

Sampling: Wear suitable gloves tested to EN374.

Laboratory activities: Handle in a fume cupboard or under extract ventilation. Wear suitable gloves tested to EN374.

Bulk transfers Closed systems: Wear suitable gloves tested to EN374.

Bulk transfers Open systems: Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Wear suitable gloves tested to EN374.

Bulk product storage: Store substance within a closed system. Transfer via enclosed lines. Outdoor

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure  
Kinematic Viscosity at 40°C (cSt): < 20.5  
Vapor pressure: 87.1 Pa

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours

**Other conditions affecting workers exposure** : Assumes activities are at ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented

**Conditions and measures related to personal protection, hygiene and health evaluation**

### **Section 3 - Exposure estimation and reference to its source**

**Website:** : Not applicable.

#### **Exposure estimation and reference to its source - Environment: 1:**

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

#### **Exposure estimation and reference to its source - Workers: 2:**

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

### **Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

**Environment**

: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.

**Health**

: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Consumer

### Identification of the substance or mixture

Product definition : UVCB  
Product name : Q8 HVO Diesel

### Section 1 - Title

Short title of the exposure scenario : Use in fuel - Consumer  
List of use descriptors : **Identified use name:** Use in fuel - Consumer  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU21  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC08b, ERC08e  
**Market sector by type of chemical product:** PC13  
**Article category related to subsequent service life:** Not applicable.

|  |   |
|--|---|
| <b>Processes and activities covered by the exposure scenario</b> | : Covers consumer uses in liquid fuels. Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste. |
| <b>Additional information</b>                                    | : See section 3.  |

### Section 2 - Exposure controls

|  |   |
|--|---|
| <b>Contributing scenario controlling environmental exposure for 1:</b>             |   |
| <b>Product characteristics</b>   | : Solubility in water (25 °C): 1.4E-3 (Petrorisk)<br>Vapor pressure: 5.1 Pa (Petrorisk)<br>Partition coefficient (LogKow): 8.4  |
| <b>Amounts used</b>  | : Regional use tonnage 55.7E3<br>Annual site tonnage 2.79   |
| <b>Frequency and duration of use</b>   | : Continuous release<br>Emission days 365   |
| <b>Environment factors not influenced by risk management</b>                       | : Local freshwater dilution factor 10<br>Local marine water dilution factor 100   |
| <b>Other conditions affecting environmental exposure</b>                           | : Release fraction to air from wide dispersive use (regional only) 1.0E-4<br>Release fraction to wastewater from wide dispersive use 1.0E-5<br>Release fraction to soil from wide dispersive use (regional only) 1.0E-5 |
| <b>Conditions and measures related to sewage treatment plant</b>                   | : Assumed on-site sewage treatment plant flow 2000<br>Estimated substance removal from wastewater via on-site sewage treatment 92.5   |
| <b>Conditions and measures related to external treatment of waste for disposal</b> | : Dispose of waste in accordance with environmental legislation.  |
| <b>Conditions and measures related to external recovery of waste</b>               | : Dispose of waste in accordance with environmental legislation.  |

**Contributing scenario controlling consumer exposure for 2:**

Product categories [PC]: 13 - Fuels Liquid: automotive refuelling

Operations Conditions (consumer): Unless otherwise stated. Covers concentrations up to 100 %. Covers use up to 52 days per year. Covers use up to 1 uses per day. Covers skin contact area up to 210.00 cm<sup>2</sup>. For each use event, covers use amounts up to 38600g. Covers outdoor use. Covers use in room size of 100 m<sup>3</sup>. For each use event, covers exposure up to 0.05 hours.

Risk management measures (RMM): No specific risk management measure identified beyond those operational conditions stated.

Product categories [PC]: 13 - Fuels Liquid: Garden Equipment - Use

Operations Conditions (consumer): Unless otherwise stated. Covers concentrations up to 100 %. Covers use up to 26 days per year. Covers use up to 1 uses per day. For each use event, covers use amounts up to 772 g. Covers outdoor use. Covers use in room size of 100 m<sup>3</sup>. For each use event, covers exposure up to 2.00 hours.

Risk management measures (RMM): No specific risk management measure identified beyond those operational conditions stated.

Product categories [PC]: 13 - Fuels Liquid: garden equipment - refuelling

Operations Conditions (consumer): Unless otherwise stated. Covers concentrations up to 100 %. Covers use up to 26 days per year. Covers use up to 1 uses per day. Covers skin contact area up to 420.00 cm<sup>2</sup>. For each use event, covers use amounts up to 772 g. Covers use in a one car garage (34 m<sup>3</sup>) under typical ventilation. Covers use in room size of 34 m<sup>3</sup>. For each use event, covers exposure up to 0.03 hours.

Risk management measures (RMM): No specific risk management measure identified beyond those operational conditions stated.

Product categories [PC]: 13 - Fuels liquid: Lamp fuel

Operations Conditions (consumer): Unless otherwise stated. Covers concentrations up to 100%. Covers use up to 52 days per year Covers use up to 1 uses per day Covers skin contact area up to 210.00 cm<sup>2</sup> For each use event, covers use amounts up to 100g Covers use in room size of 20 m<sup>3</sup> For each use event, covers exposure up to 0.01 hours.

Risk management measures (RMM): No specific risk management measure identified beyond those operational conditions stated.

Product categories [PC]: 13 - Fuels liquid: Home heating fuel

Operations Conditions (consumer): Unless otherwise stated. Covers concentrations up to 100%. Covers use up to 365 days per year Covers use up to 1 uses per day Covers skin contact area up to 210.00 cm<sup>2</sup> For each use event, covers use amounts up to 1500g Covers use in room size of 20 m<sup>3</sup> For each use event, covers exposure up to 0.03 hours

Risk management measures (RMM): No specific risk management measure identified beyond those operational conditions stated.

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Physical state** : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure Kinematic Viscosity at 40°C (cSt): <20.5

**Frequency and duration of use/exposure** : Unless otherwise stated, For each use event, covers exposure up to 2 hours

**Other given operational conditions affecting consumers exposure** : Unless otherwise stated, Covers use at ambient temperatures. Covers use in room size of 20 m<sup>3</sup>. Covers use under typical household ventilation.

**Conditions and measures related to personal protection and hygiene**

**Section 3 - Exposure estimation and reference to its source**

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1:**

**Exposure assessment (environment):** : Petrorisk

**Exposure estimation and reference to its source** : Exposures are low and do not exceed limit values.

**Exposure estimation and reference to its source - Consumers: 2:**

**Exposure assessment (human):** : Not available.

**Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

**Environment** : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet.

**Health** : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.