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 : 700-571-2

REACH Registration number

Registration number	Legal entity
01-2120043692-58 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
Formulation and (re)packing of substances and mixtures - Industrial (Formulation) Distribution of substance - Industrial Use as an intermediate - Industrial Use as a fuel - Industrial Use as a fuel - Professional Use as a fuel - Consumer

1.3 Details of the supplier of the safety data sheet

Supplier : Q8 Danmark A/S
Arne Jacobsens Allé 7
2300 København S, Danmark
Tel.: +45 7012 4545
Email: produktteknik@Q8.dk
Web: www.Q8.dk

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

Denmark : +45 8988 2286

Europe : +44 (0) 1235 239 670

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

CARECHEM24

National advisory body/Poison Center

Denmark : Bispebjerg Hospital - poison line : +45 8212 1212

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.

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 carefully and follow all instructions.
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.

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 :

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

SECTION 2: Hazards identification

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

SECTION 3: Composition/information on ingredients

3.1 Substances : UVCB

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Renewable hydrocarbons (diesel type fraction)	REACH #: 01-2120043692-58 01-2119450077-42 EC: 700-571-2 CAS: 928771-01-1	100	Asp. Tox. 1, H304 EUH066 **See Section 16 for the full text of the H statements declared above.**	-	[1]

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

[1] Constituent

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.

SECTION 4: First aid measures

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 : In case of fire, use water spray (fog), foam, dry chemical or CO_2.

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.

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)	**EU OEL (Europe).** TWA: 5 mg/m³, (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

Product/ingredient name	Type	Exposure	Value	Population	Effects
Renewable hydrocarbons (diesel type fraction)	DNEL	Long term Oral	18 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	18 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	42 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	94 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	147 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: 4 - 8 hours (breakthrough time): nitrile rubber / neoprene / PVC 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.

SECTION 8: Exposure controls/personal protection

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. [Clear.]

Appearance : Oily liquid.

Color : Colorless.

Odor : Characteristic. [Slight]

Odor threshold : Not available.

Melting point/freezing point : ≤-20°C (<-4°F) [EU A.1]

Initial boiling point and boiling range : >180°C (>356°F) [EN ISO 3405]

Flammability : Not applicable.

Lower and upper explosion limit : Not available.

Flash point : Closed cup: >61°C (>141.8°F) [DIN EN ISO 2719]

Auto-ignition temperature : 204°C (399.2°F) [EU A.15]

Decomposition temperature : Not available.

pH : Not available.

Viscosity : Kinematic (room temperature): 4 mm^2/s (4 cSt) [OECD 114]
Kinematic (40°C (104°F)): 2.6 mm^2/s (2.6 cSt) [OECD 114]

Solubility(ies) :

Media	Result
cold water	Not soluble
hot water	Not soluble
methanol	Soluble

Solubility in water : ≤0.1 g/l

Miscible with water : No.

Partition coefficient: n-octanol/water : >6.5 [EU A.8]

Vapor pressure : 0.087 kPa (0.65 mm Hg) [EU A.4]

Density : 0.78 g/cm^3 [15.6°C (60.1°F)] [DIN EN ISO 12185 - EU A.3]

Vapor density : Not available.

Explosive properties : Not applicable.

Oxidizing properties : Not applicable.

Particle characteristics

Median particle size : Not applicable.

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
Renewable hydrocarbons (diesel type fraction)	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met. (EU B.4)

Eyes : Based on available data, the classification criteria are not met. (EU B.5)

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

Sensitization

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met. (EU B.6)

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

Mutagenicity

Conclusion/Summary : Based on available data, the classification criteria are not met. (EU B.10, B.13/14 & B.17)

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Conclusion/Summary : Based on available data, the classification criteria are not met. (OECD 416)

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

SECTION 11: Toxicological information

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 : 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

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

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

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 Acute EC50 >100 mg/l Acute LC50 >1000 mg/l	Algae Daphnia Fish	72 hours 48 hours 96 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Renewable hydrocarbons (diesel type fraction)	OECD 301B Ready Biodegradability - CO_2 Evolution Test	>60 % - Inherent - 28 days	-	-

Conclusion/Summary : Not available.

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

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Renewable hydrocarbons (diesel type fraction)	>6.5	-	high

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 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

SECTION 13: Disposal considerations

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 or ID 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 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADR/RID : **Hazard identification number** 30
Limited quantity 5 L
Special provisions 640M, 664
Tunnel code (D/E)

ADN : **Special provisions** 640M

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.

SECTION 14: Transport information

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

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.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Denmark

Product registration number : 4361680

Danish fire class : III-1

MAL-code : 5-3

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

SECTION 15: Regulatory information

appropriate or as instructed.

MAL-code: 5-3
Application: When spraying in new* booths if the operator is outside the spray zone. During non-atomizing spraying in existing* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied full mask must be worn.

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. 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.

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

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

- Air-supplied full mask, 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.

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.

SECTION 15: Regulatory information

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : Not determined.

Eurasian Economic Union : **Russian Federation inventory**: This material is listed or exempted.

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

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : This material is listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States of America : This material is active or exempted.

Viet Nam : Not determined.

15.2 Chemical Safety Assessment : Complete.

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

SECTION 16: Other information

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	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.

Full text of classifications [CLP/GHS]

Asp. Tox. 1	ASPIRATION HAZARD - Category 1

Training advice : Ensure operatives are trained to minimise exposures.

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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)

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 as a fuel - Professional

List of use descriptors : **Identified use name:** Use as a fuel - Professional
Process Category: PROC01, PROC02, PROC03, 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: ERC09a, ERC09b, ESVOC SPERC 9.12b.v1
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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 0.1
Daily amount per site: ≤ 160 kg

Frequency and duration of use : Emission days: 365 days per year

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): 0.01%
Release fraction to wastewater from process (initial release prior to RMM): 0.001%
Release fraction to soil from process (initial release prior to RMM): 0.001%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

Bulk transfers - Heating oil and diesel deliveries (PROC 8b):
- Provide enhanced general ventilation by mechanical means.
- Handle substance within a closed system.
- Wear suitable gloves tested to EN374.

Drum/batch transfers (PROC 8b):
- Provide enhanced general ventilation by mechanical means.
- Use drum pumps or carefully pour from container.
- Wear suitable gloves tested to EN374.

General exposures (PROC 1, PROC 2, PROC 3, PROC 16):

- No specific measures identified.

Equipment cleaning and maintenance (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves tested to EN374.

Vessel and container cleaning (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves (tested to EN374), coverall and eye protection.

Refuelling (PROC 8b):
- Provide enhanced general ventilation by mechanical means.
- Use drum pumps or carefully pour from container.
- Wear suitable gloves tested to EN374.

Dipping, immersion and pouring (PROC 8b):
- Wear suitable gloves tested to EN374.

Storage (PROC 1, PROC2):
- No specific measures identified.

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Human factors not influenced by risk management	:	Body parts exposed PROC 1, PROC 3, PROC 16: Covers skin contact area up to 240 cm² (Palm of one hand) PROC 2: Covers skin contact area up to 480 cm² (Palm of both hands) PROC 8a, PROC 8b: Covers skin contact area up to 960 cm² (Both hands)
Other conditions affecting workers exposure	:	Indoor use Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Ventilation: 1-3 ach (air changes per hour)

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):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

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

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

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

Environment	:	Not available.
Health	:	Not available.

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 (Formulation)
Process Category: PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC15
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: ERC02, ESVOC SPERC 2.2.v1
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, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 1
Annual site tonnage: ≤ 1 500 000 t
Maximum daily site tonnage: ≤ 100 t

Frequency and duration of use : Emission days: 300 days per year

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): 0.25%
Release fraction to wastewater from process (initial release prior to RMM): 0.005%
Release fraction to soil from process (initial release prior to RMM): 0.01%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

Mixing operations (PROC 3):
- No specific measures identified.

Batch processes at elevated temperatures (PROC3):
- No specific measures identified.

Process sampling (PROC 3):
- Wear suitable gloves tested to EN374.

Laboratory activities (PROC 15):
- Provide enhanced general ventilation by mechanical means.
- Handle in a fume cupboard or under extract ventilation.
- Wear suitable gloves tested to EN374.

Bulk transfers (PROC 8b):
- No specific measures identified.

Mixing operations (open systems) (PROC 5):
- Wear suitable gloves tested to EN374.

Transfer from/pouring from containers - Manual (PROC 8a):
- Wear suitable gloves tested to EN374.

Drum/batch transfers (PROC 8b):
- No specific measures identified.

Drum and small package filling (PROC 9):
- Fill containers/cans at dedicated fill points supplied with local extract ventilation.

Equipment cleaning and maintenance (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves tested to EN374.

Storage (PROC 1, PROC2):
- No specific measures identified.

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Human factors not influenced by risk management	:	Body parts exposed PROC 1, PROC 3, PROC 15: Covers skin contact area up to 240 cm² (Palm of one hand) PROC 2, PROC 5, PROC 9: Covers skin contact area up to 480 cm² (Palm of both hands) PROC 8a, PROC 8b: Covers skin contact area up to 960 cm² (Both hands)
Other conditions affecting workers exposure	:	Indoor use Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene is implemented Ventilation: 1-3 ach (air changes per hour)

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):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

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

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

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

Environment	:	Not available.
Health	:	Not available.

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, PROC09, PROC15
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, ESVOC SPERC 1.1b.v1
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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 1
Annual site tonnage: ≤ 1 500 000 t
Maximum daily site tonnage: ≤ 5000 t

Frequency and duration of use : Emission days: 300 days per year

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): 0.001%
Release fraction to wastewater from process (initial release prior to RMM): 4E-7%
Release fraction to soil from process (initial release prior to RMM): 0.001%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

General exposures (closed systems) - With occasional controlled exposure (PROC 3):
- No specific measures identified.

Process sampling (PROC 3):
- Wear suitable gloves tested to EN374.

Laboratory activities (PROC 15):
- Provide enhanced general ventilation by mechanical means.
- Handle in a fume cupboard or under extract ventilation.
- Wear suitable gloves tested to EN374.

Bulk transfers - Road tanker/rail car (Closed systems) (PROC 8b):
- Use vapor recovery units when necessary.
- Wear suitable gloves tested to EN374.

Bulk transfers - Marine vessel/barge Loading and unloading (Closed systems) (PROC 8b):
- Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves tested to EN374.

Storage - With occasional controlled exposure (PROC2):
- No specific measures identified.

Drum and small package filling (PROC 9):
- Wear suitable gloves tested to EN374.

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Body parts exposed PROC 3, PROC 15: Covers skin contact area up to 240 cm² (Palm of one hand) PROC 2, PROC 9: Covers skin contact area up to 480 cm² (Palm of both hands) PROC 8a, PROC 8b: Covers skin contact area up to 960 cm² (Both hands)
Other conditions affecting workers exposure	:	Indoor use Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene is implemented Ventilation: 1-3 ach (air changes per hour)

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):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

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

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

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

Environment	:	Not available.
Health	:	Not available.

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 a fuel - Industrial

List of use descriptors : **Identified use name:** Use as a fuel - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, 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, ESVOC SPERC 7.12a.v1
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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 1
Annual site tonnage: ≤ 10 000 t
Maximum daily site tonnage: ≤ 5000 t

Frequency and duration of use : Emission days: 300 days per year

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): 0.025%
Release fraction to wastewater from process (initial release prior to RMM): 0.001%
Release fraction to soil from process (initial release prior to RMM): 0%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : Retain drain-downs in sealed storage pending disposal or for subsequent recycle. External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

Bulk transfers (PROC 4):
- Wear suitable gloves tested to EN374.

Bulk transfers (PROC 8b):
- Use drum pumps or carefully pour from container.
- Wear suitable gloves tested to EN374.

Drum/batch transfers (PROC 8b):
- Provide enhanced general ventilation by mechanical means.
- Use drum pumps or carefully pour from container.
- Wear suitable gloves tested to EN374.

General exposures (closed systems) - Continuous process (PROC 1):
- No specific measures identified.

General exposures (closed systems) - Continuous process - With sample collection (PROC 2):
- Ensure material transfers are under containment or extract ventilation.

General exposures (closed systems) - Batch process (PROC 3):
- Ensure material transfers are under containment or extract ventilation.

General exposures (open systems) (PROC 16):
- Ensure material transfers are under containment or extract ventilation.

Process sampling (PROC 3):
- Wear suitable gloves tested to EN374.

Laboratory activities (PROC 15):
- Provide enhanced general ventilation by mechanical means.
- Handle in a fume cupboard or under extract ventilation.
- Wear suitable gloves tested to EN374.

Equipment cleaning and maintenance (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves tested to EN374.

Vessel and container cleaning (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- If above technical/organisational control measures are not feasible, then adopt following PPE
  Wear special protective clothing and positive pressure, self-contained breathing apparatus.
- Wear suitable gloves (tested to EN374), coverall and eye protection.

Refuelling (PROC 8b):
- Use drum pumps or carefully pour from container.
- Use vapor recovery units when necessary.
- Wear suitable gloves tested to EN374.

Storage (PROC 1, PROC2):
- No specific measures identified.

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Human factors not influenced by risk management	:	Body parts exposed PROC 1, PROC 3, PROC 15, PROC 16: Covers skin contact area up to 240 cm² (Palm of one hand) PROC 2, PROC 4: Covers skin contact area up to 480 cm² (Palm of both hands) PROC 8a, PROC 8b: Covers skin contact area up to 960 cm² (Both hands)
Other conditions affecting workers exposure	:	Indoor use Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene is implemented Ventilation: 1-3 ach (air changes per hour)

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):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

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

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

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

Environment	:	Not available.
Health	:	Not available.

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: PROC02, PROC03, PROC08a, PROC08b, PROC15, PROC01, PROC04
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: ERC06a, ESVOC SPERC 6.1a.v1
Article category related to subsequent service life: Not applicable.

Processes and activities covered by the exposure scenario : 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).

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 1
Annual site tonnage: ≤ 15 000 t
Maximum daily site tonnage: ≤ 50 t

Frequency and duration of use : Emission days: 300 days per year

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): 0.002%
Release fraction to wastewater from process (initial release prior to RMM): 0.001%
Release fraction to soil from process (initial release prior to RMM): 0.1%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : Retain drain-downs in sealed storage pending disposal or for subsequent recycle. External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

General exposures (closed systems) (PROC 1):
- No specific measures identified.

General exposures (closed systems) - With sample collection - With occasional controlled exposure (PROC 2):
- No specific measures identified.

General exposures (closed systems) - Batch process (PROC 3):
- No specific measures identified.

General exposures (open systems) - Batch process - With sample collection (PROC 4):
- No specific measures identified.

Sampling (PROC 8b):
- No specific measures identified.

Laboratory activities (PROC 15):
- Provide enhanced general ventilation by mechanical means.
- Handle in a fume cupboard or under extract ventilation.
- Wear suitable gloves tested to EN374.

Bulk transfers (Closed systems) (PROC 8b):
- No specific measures identified.

Equipment cleaning and maintenance (PROC 8a):
- Provide enhanced general ventilation by mechanical means.
- Drain down and flush system prior to equipment break-in or maintenance.
- Wear suitable gloves tested to EN374.

Storage (PROC 1, PROC2):
- No specific measures identified.

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Human factors not influenced by risk management	:	Body parts exposed PROC 1, PROC 3, PROC 15: Covers skin contact area up to 240 cm² (Palm of one hand) PROC 2, PROC 4: Covers skin contact area up to 480 cm² (Palm of both hands) PROC 8a, PROC 8b: Covers skin contact area up to 960 cm² (Both hands)
Other conditions affecting workers exposure	:	Indoor use Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene is implemented Ventilation: 1-3 ach (air changes per hour)

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):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

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

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

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

Environment	:	Not available.
Health	:	Not available.

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 as a fuel - Consumer

List of use descriptors : **Identified use name:** Use as a 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: ERC09a, ERC09b, ESVOC SPERC 9.12c.v1
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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Amounts used : Fraction of EU tonnage used in region: 0.1
Daily amount per site: ≤ 550 kg

Frequency and duration of use : Emission days: 365 days per year

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): 0.01%
Release fraction to wastewater from process (initial release prior to RMM): 0.001%
Release fraction to soil from process (initial release prior to RMM): 0.001%

Conditions and measures related to sewage treatment plant : Aerobic biological treatment
Assumed domestic sewage treatment plant flow: 2000 m³/day

Conditions and measures related to external treatment of waste for disposal : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Conditions and measures related to external recovery of waste : External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling consumer exposure for 2: Liquid: automotive refuelling

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100% (unless stated differently)

Physical state : Liquid

Amounts used : For each use event, covers use amounts up to: 38.6 kg

Frequency and duration of use/exposure : Covers exposure up to: 0.05 h/event

Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 3: Liquid: scooter refuelling

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 7.5 kg
Frequency and duration of use/exposure	:	Covers exposure up to: 0.02 h/event
Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 4: Liquid: garden equipment - use

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 772 g
Frequency and duration of use/exposure	:	Covers exposure up to: 2 h/event
Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 5: Liquid: garden equipment - refuelling

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 772 g
Frequency and duration of use/exposure	:	Covers exposure up to: 0.03 h/event
Human factors not influenced by risk management	:	Covers skin contact area up to 480 cm² (Palm of both hands)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 6: Liquid: lamp oil

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 100 g
Frequency and duration of use/exposure	:	Covers exposure up to: 0.01 h/event
Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Indoor and outdoor use. Indoor use - Covers use under typical household ventilation.
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 7: Liquid: home space heater fuel

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 3.32 kg
Frequency and duration of use/exposure	:	Covers exposure up to: 0.1 h/event

Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Contributing scenario controlling consumer exposure for 8: Liquid: refuelling boat

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid
Amounts used	:	For each use event, covers use amounts up to: 156 kg
Frequency and duration of use/exposure	:	Covers exposure up to: 0.25 h/event
Human factors not influenced by risk management	:	Covers skin contact area up to 240 cm² (Palm of one hand)
Other given operational conditions affecting consumers exposure	:	Covers outdoor use. (unless stated differently)
Conditions and measures related to information and behavioural advice to consumers	:	Avoid contact with eyes, skin and clothing.

Conditions and measures related to personal protection and hygiene

Personal protection	:	Wash off any skin contamination immediately. Do not ingest. If swallowed then seek immediate medical assistance.

Section 3 - Exposure estimation and reference to its source

Website:	:	Not applicable.

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

Exposure assessment (environment):	:	Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 2: Liquid: automotive refuelling

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 3: Liquid: scooter refuelling

Exposure assessment (human):	:	Used CHESAR model.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 4: Liquid: garden equipment - use

Exposure assessment (human): : Used CHESAR model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 5: Liquid: garden equipment - refuelling

Exposure assessment (human): : Used CHESAR model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 6: Liquid: lamp oil

Exposure assessment (human): : Used CHESAR model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 7: Liquid: home space heater fuel

Exposure assessment (human): : Used CHESAR model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 8: Liquid: refuelling boat

Exposure assessment (human): : Used CHESAR model.

Exposure estimation and reference to its source : Not available.

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

Environment : Not available.

Health : Not available.